

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES SECTION**

PART VI –C (ARCHIVES)

WATERBODY MANAGEMENT PLAN SERIES

KEPLER LAKE

**AQUATIC VEGETATION TYPE MAPS
AND NARRATIVES**

Aquatic Vegetation Type Maps and Narratives

Kepler Lake – Aquatic Vegetation Type Map and Narrative - 1980

Kepler Lake August
1980

Kepler was under a drawdown when the survey was made. The lake was down four feet. The water was clear and no plankton bloom was noticed.

The major submersed plants listed in order of importance are Brazilian elodea (*Egeria densa*), and fanwort (*Cabomba caroliniana*). No other plants were observed during survey. Brazilian elodea (*Egeria densa*) covered an area at the dam and fanwort (*Cabomba caroliniana*) was observed in all other areas.

The major marginal plants were rush (*Juncus spp.*) and American lotus (*Nelumbo lutea*). American lotus (*Nelumbo lutea*) covered about a two acre area in about the middle portion of the lake.

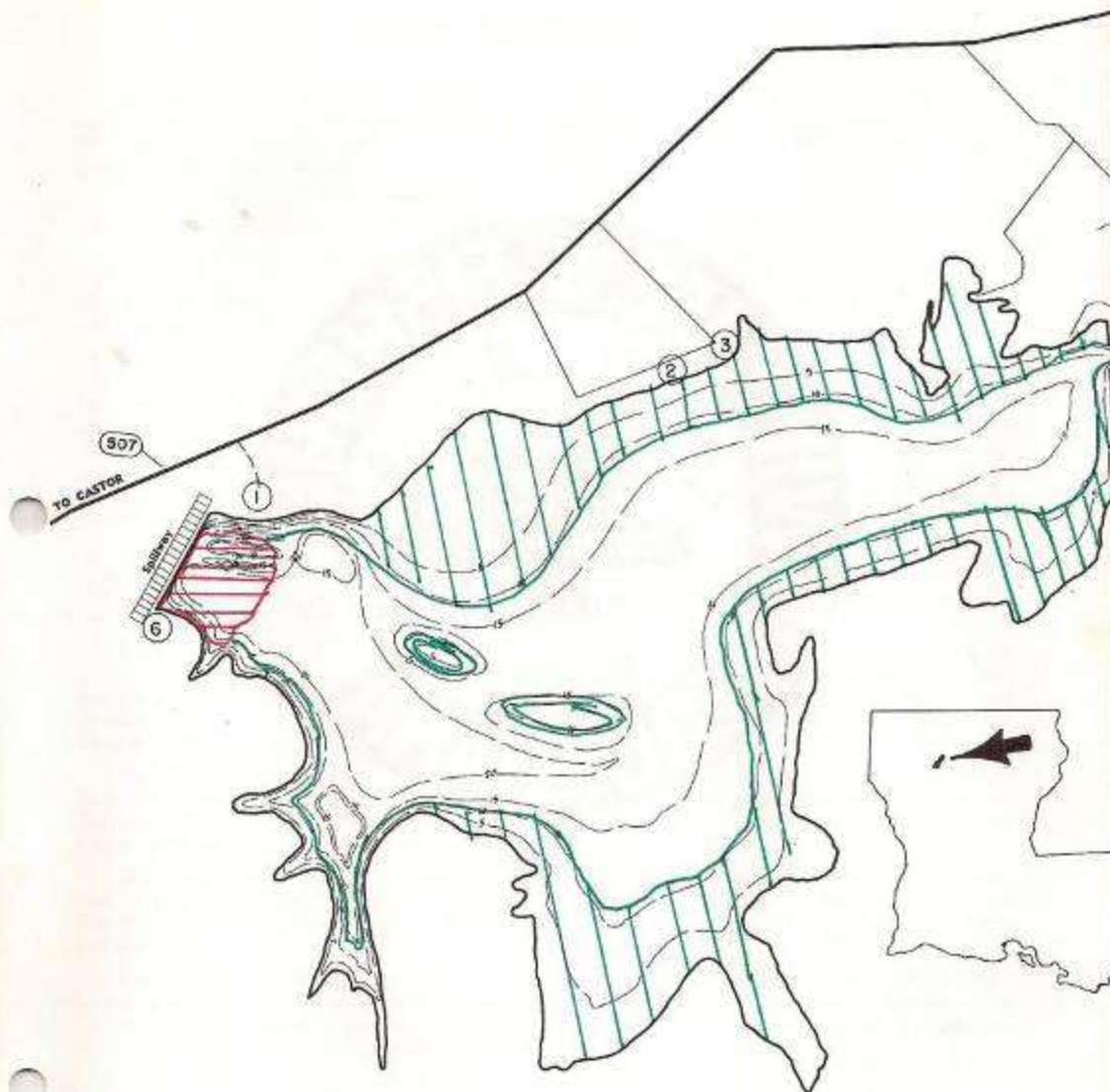
At the time of the survey, Kepler has a severe plant problem.

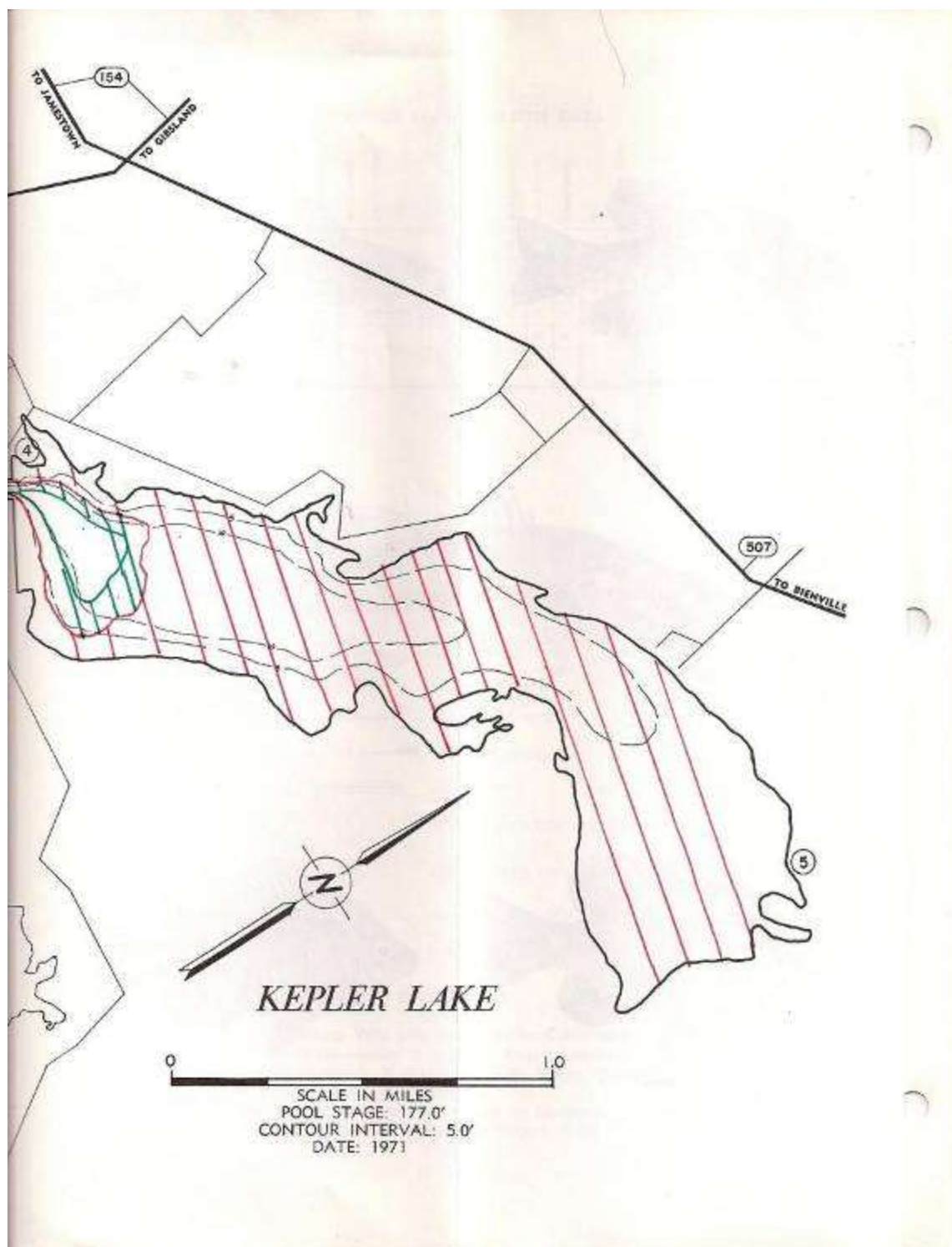
Melvin Bagwell Aquatic
Specialist

Above text transcribed from original document and corrected by James Seales, January 2012.

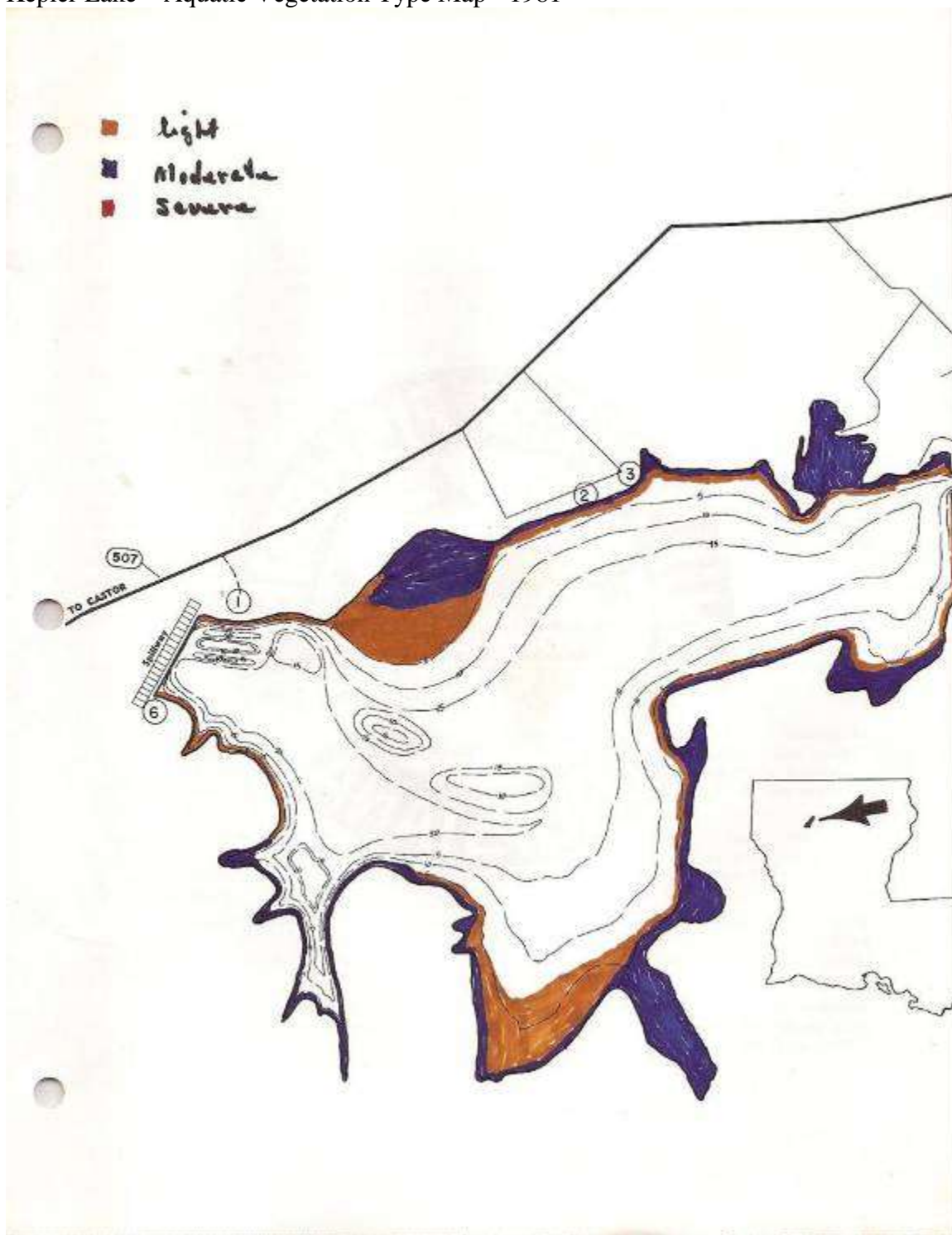
August 1980

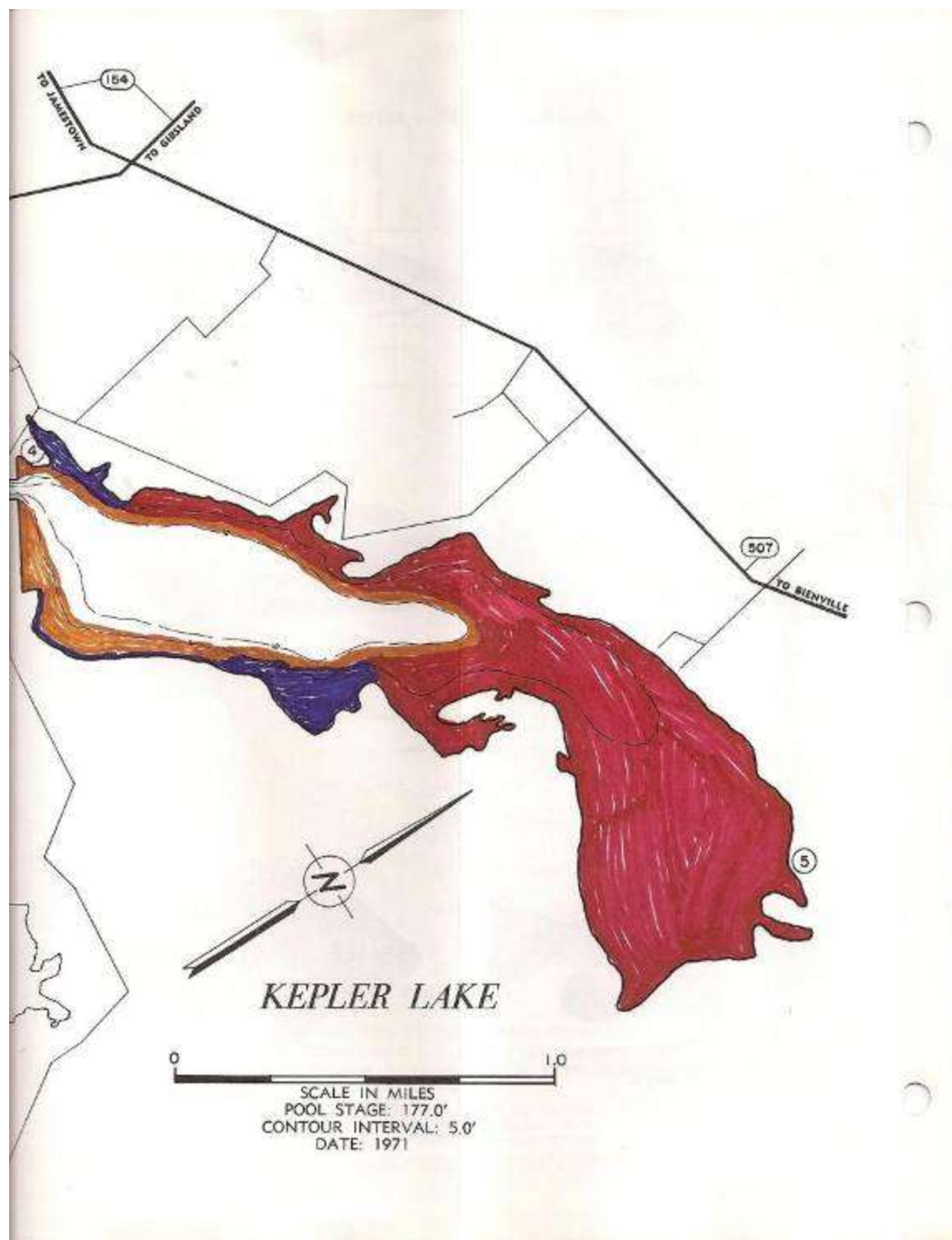
light
medium
dense





Kepler Lake – Aquatic Vegetation Type Map - 1981





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1982

KEPLER LAKE 1982

At the time of assessment and type map, Kepler Lake was at pool stages. The color of the water was murky. There was some algae bloom present. The reason for the color could be because of locally heavy rainfall.

The dam has a crack in it. I could not judge how badly damaged it is.

The submersed species noted were fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* spp.), Brazilian elodea (*Egeria densa*), and muskgrass (*Chara* spp.). There was a severe infestation in the extreme upper end which consisted of fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia* spp.), and coontail (*Ceratophyllum demersum*), with the primary species being fanwort (*Cabomba caroliniana*) and bladderwort (*Utricularia* spp.). The light and moderate infestations consisted primarily of bladderwort (*Utricularia* spp.) and muskgrass (*Chara* spp.) with some fragments of fanwort (*Cabomba caroliniana*) in the mid-portion and with some fragments of Brazilian elodea (*Egeria densa*) in the area next to the dam. Some muskgrass (*Chara* spp.) was found in all areas.

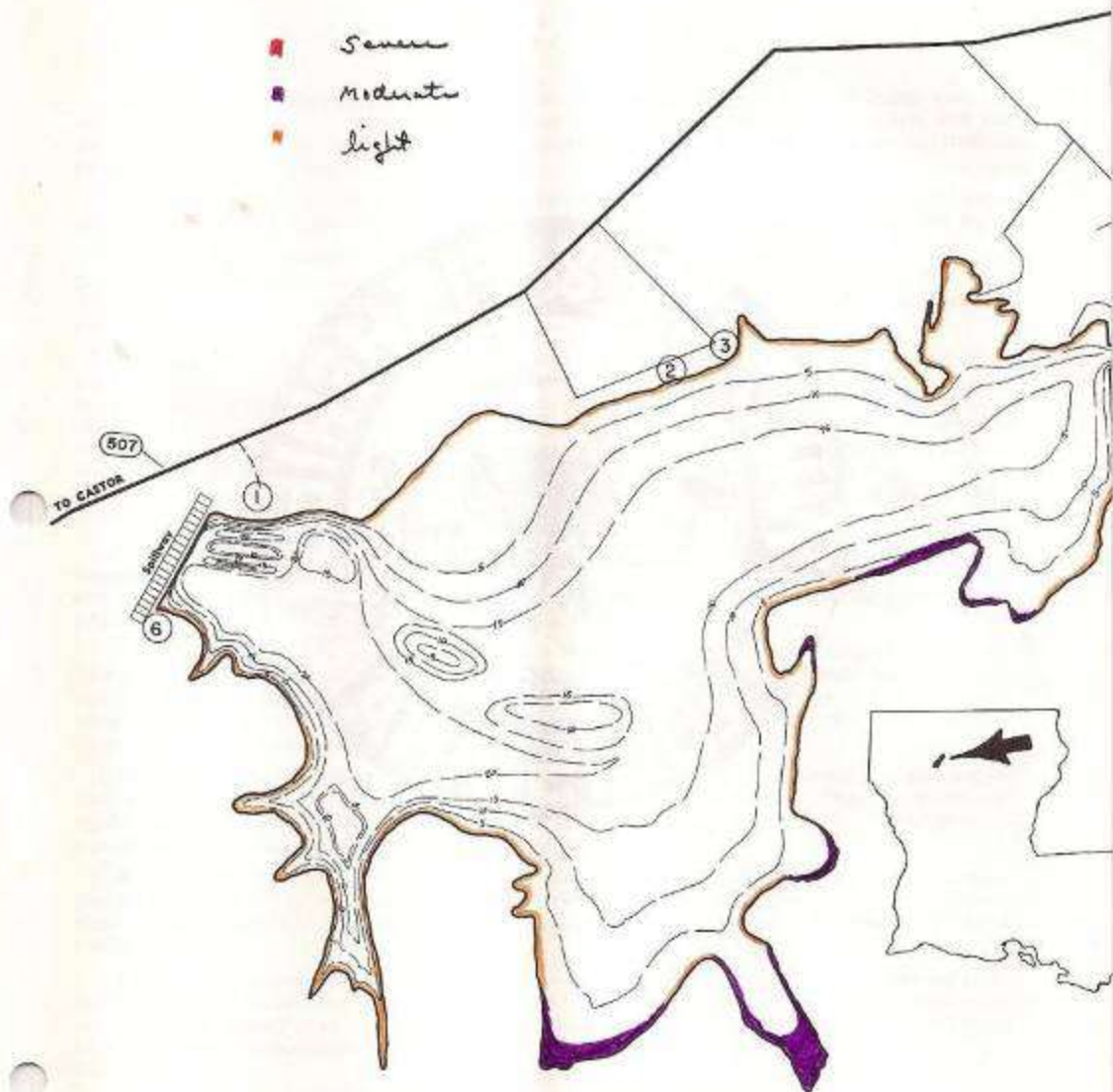
There was an infestation of American lotus (*Nelumbo lutea*) in one area on the east side below the bridge.

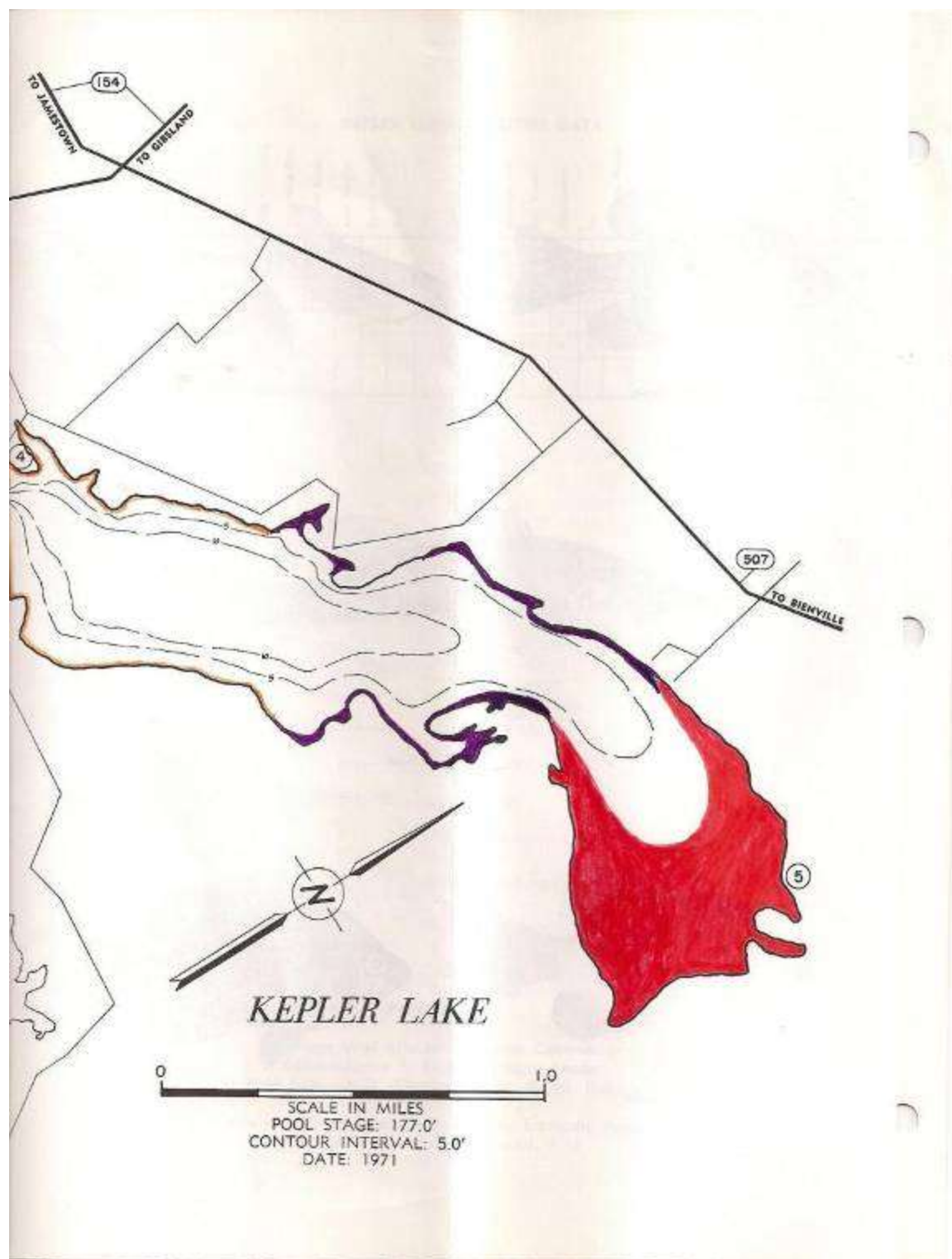
The drawdown also got rid of some of the stumps in all areas. The lake as a whole has a lot less stumps.

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August 1982

- Severe
- Moderate
- light





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1983

KEPLER LAKE
1983

At the time of assessment Kepler Lake was at pool stage. The color of the water was very clear. Some plankton blooms were noted in the upper portion of the lake.

The severe infestation as indicated on the type map, are comprised of fanwort (*Cabomba caroliniana*), milfoil (*Myriophyllum spp.*), bladderwort (*Utricularia spp.*), and filamentous algae.

The moderate infestations noted were comprised of fanwort (*Cabomba caroliniana*) and milfoil (*Myriophyllum spp.*).

The light infestations noted were comprised of bladderwort (*Utricularia spp.*), pondweed (*Potamogeton spp.*), filamentous algae and fragments of fanwort (*Cabomba caroliniana*).

There were no floating plants noted in Kepler Lake.

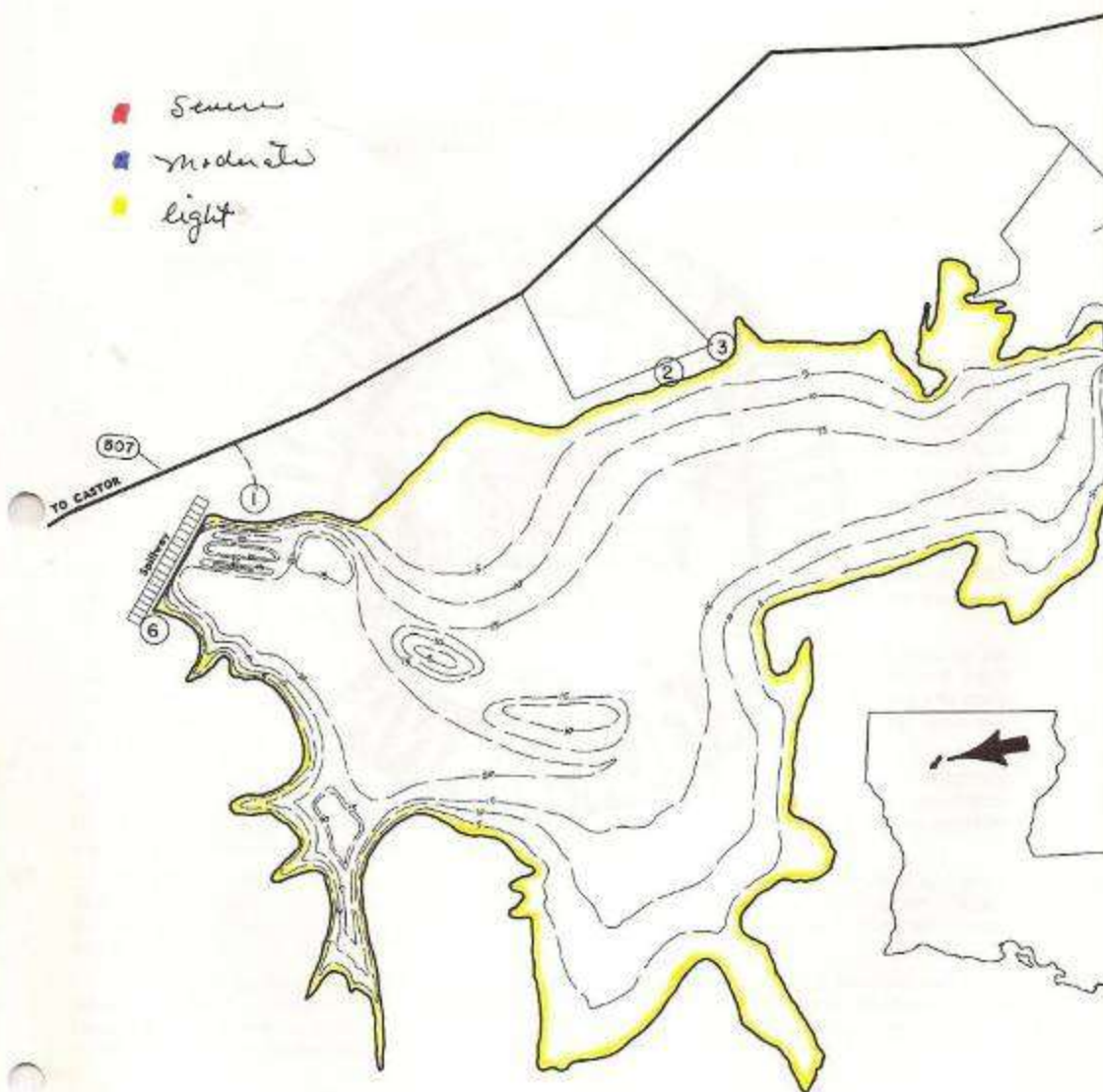
The emerged plants noted were American lotus (*Nelumbo lutea*), and they were in an area about one acre in size in the mid portion of the lake.

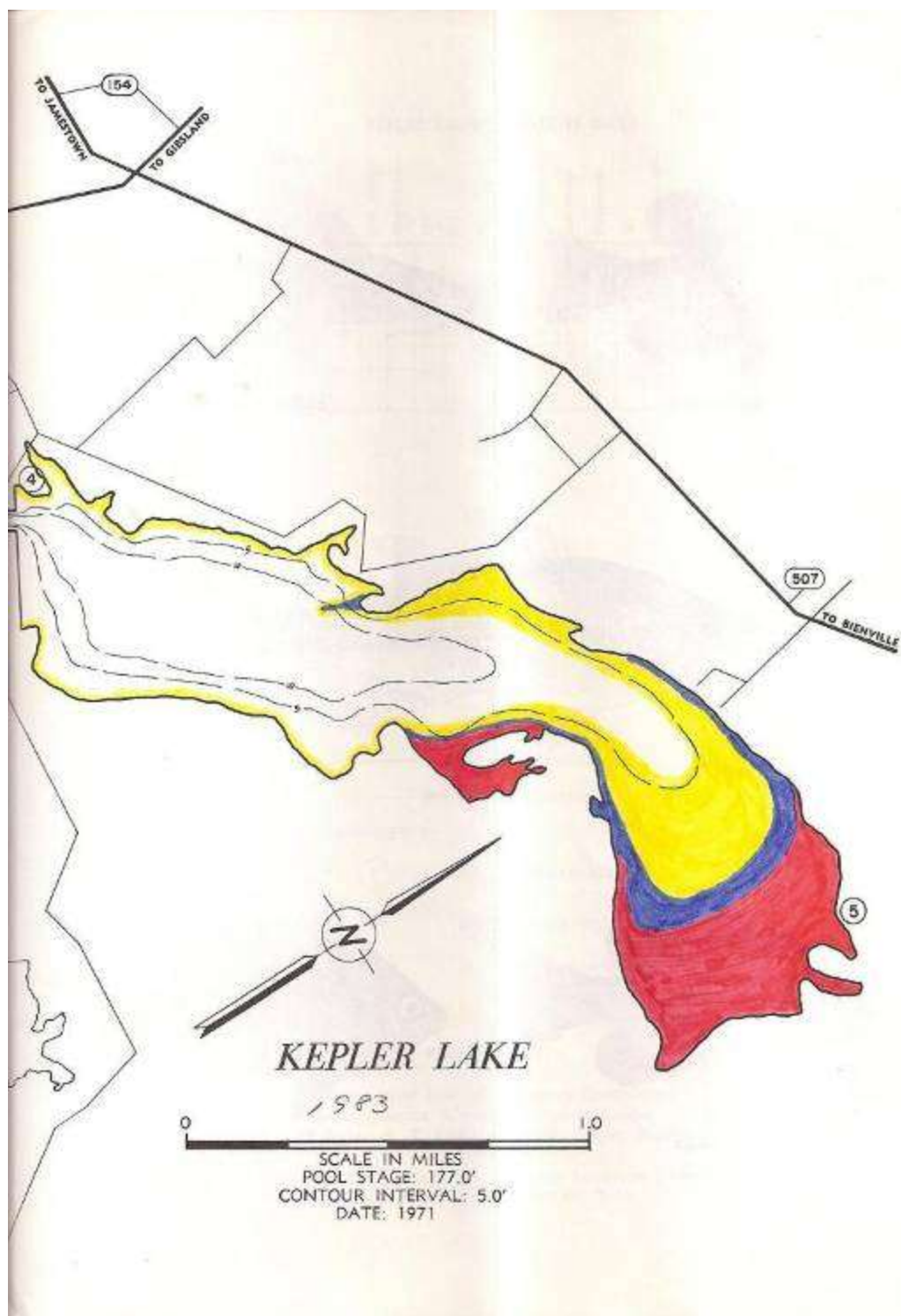
Marginal plants were fiddleleaf (*Hydrolea spp.*), buttonbush (*Cephalanthus occidentalis*), arrowhead (*Sagittaria spp.*), smartweed (*Polygonum spp.*), and miscellaneous grasses.

In summary Kepler Lake is in good condition. There has been no significant increase in submersed plants since last year. The emerged plants have decreased somewhat. Marginal plants have not increased and they are in tolerable numbers.

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- severe
- moderate
- light





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1984

Kepler Lake 1984

At the time of assessment Kepler Lake was at pool stage. There was little plankton bloom noted in any area. Some filamentous algae was noted in almost all areas.

The severe infestations as noted on the type map were comprised of fanwort (*Cabomba caroliniana*), milfoil (*Myriophyllum spp.*), coontail (*Ceratophyllum demersum*), and bladderwort (*Utricularia spp.*). In almost all areas the aforementioned plants were mixed in the infestation.

The moderate infestations consisted of fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), and bladderwort (*Utricularia spp.*).

The light infestations consisted of fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia spp.*), and pondweed (*Potamogeton spp.*) In some areas of light infestation the plants were fragmented.

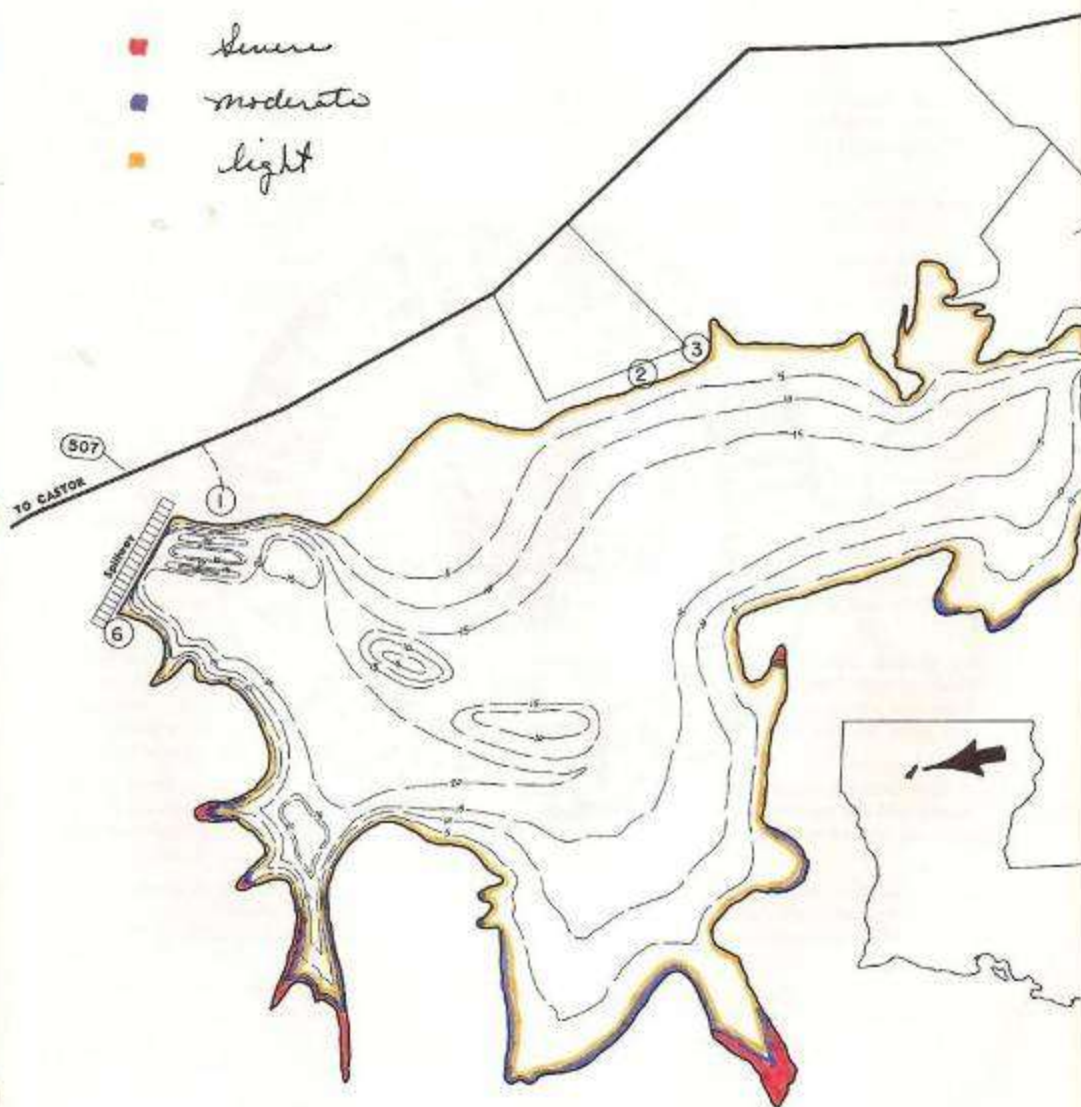
The marginal plants noted were buttonbush (*Cephalanthus occidentalis*), willow (*Salix spp.*), spikerush (*Eleocharis spp.*), bald cypress (*Taxodium distichum*), cattail (*Typha spp.*), fiddleleaf (*Hydrolea spp.*), water primrose (*Ludwigia octovalvis*), and one spot of alligator-weed (*Alternanthera philoxeroides*).

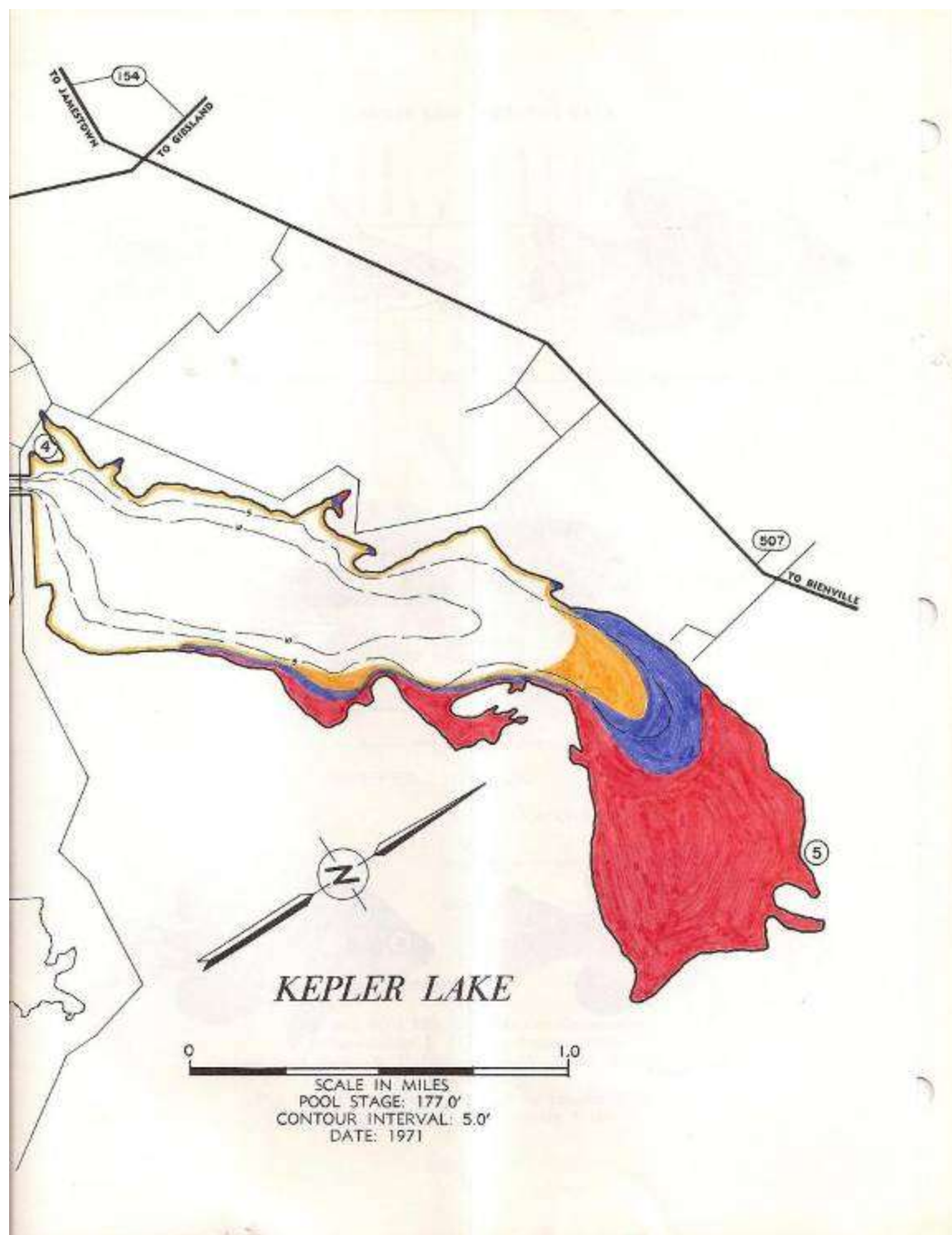
In summary Kepler Lake is in fair to poor condition. The aquatic plants have increased as anticipated. With the exception of the upper end, all areas of Kepler Lake are accessible to fishermen and boaters.

Melvin Bagwell
WLF Sp. 4

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- severe
- moderate
- light





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1988

KEPLER LAKE
1988

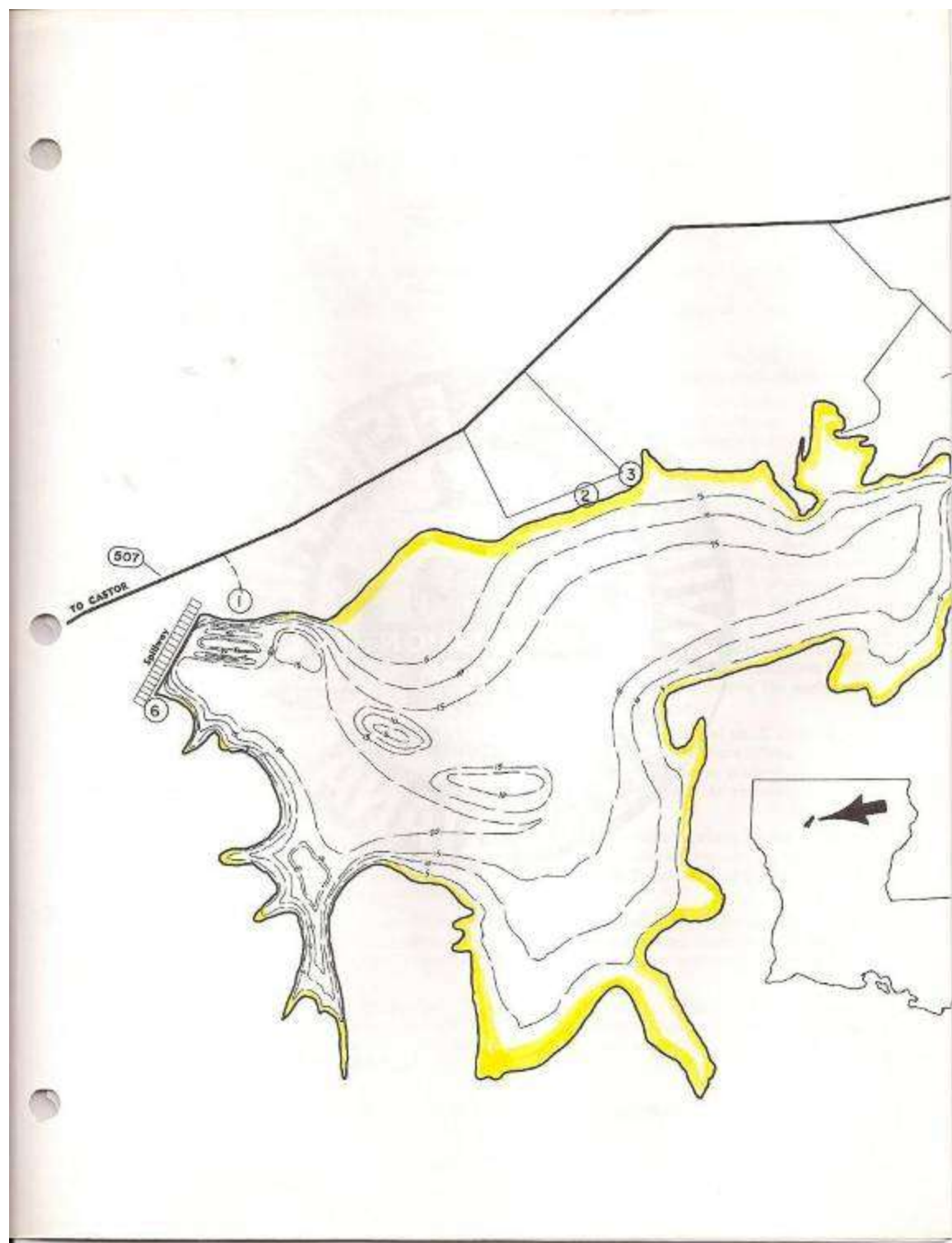
At the time of assessment Kepler Lake was at pool stage. Water color was fair in all areas except the upper end which was very clear.

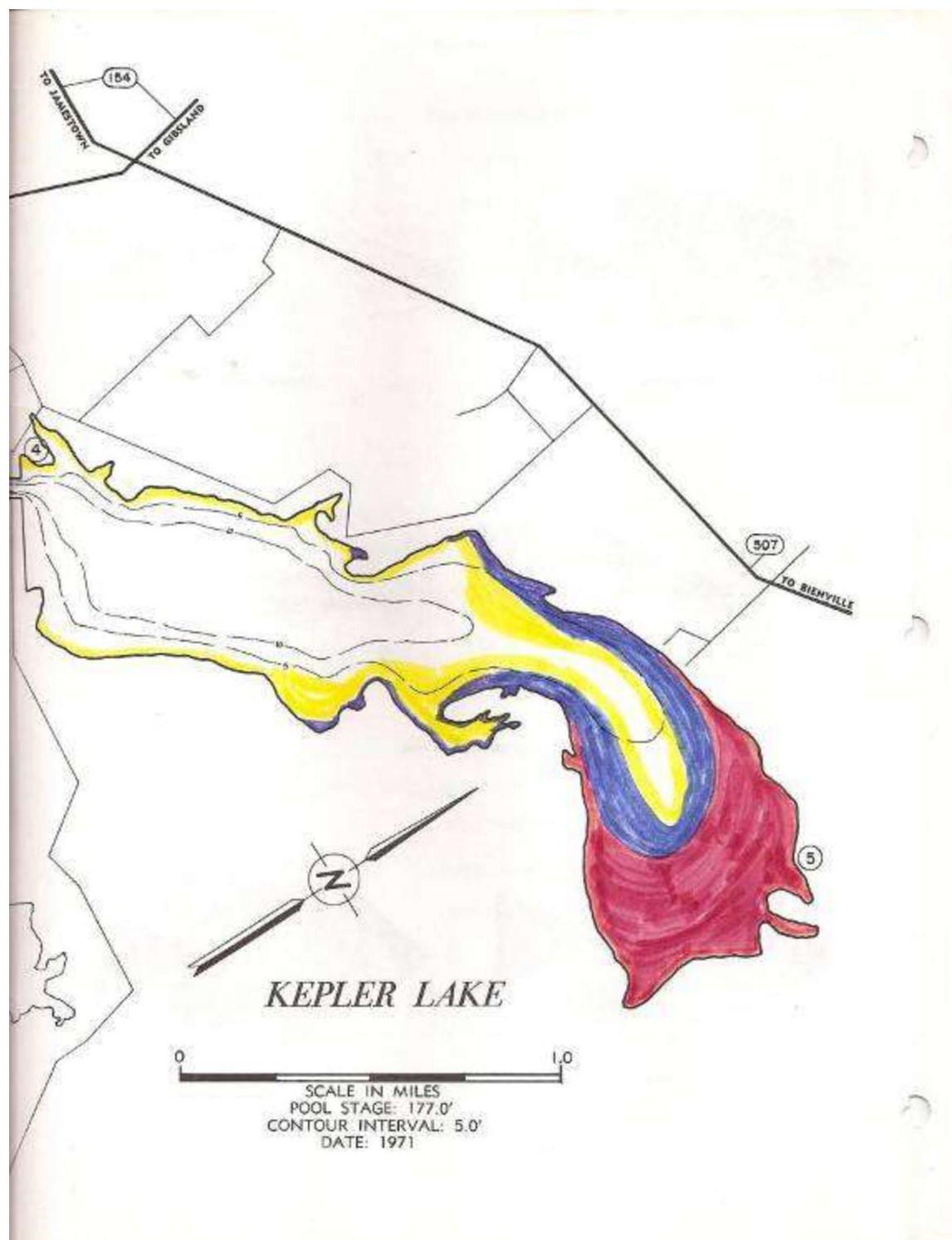
The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), Brazilian elodea (*Egeria densa*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* spp.), and southern naiad (*Najas guadalupensis*).

The emergent plant noted was American lotus (*Nelumbo lutea*).

In summary Kepler Lake is in fair condition. There has been no increase in aquatic plants this season and there has been some decrease in a few small areas in the upper end. The Brazilian elodea (*Egeria densa*) noted was in the area of the dam and seems to be isolated there, although in past years it has been found in infestations all over the lower portion of the lake. The severe infestations were primarily fanwort (*Cabomba caroliniana*) and bladderwort (*Utricularia* spp.). The moderate infestations were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia* spp.), coontail (*Ceratophyllum demersum*) and southern naiad (*Najas guadalupensis*).

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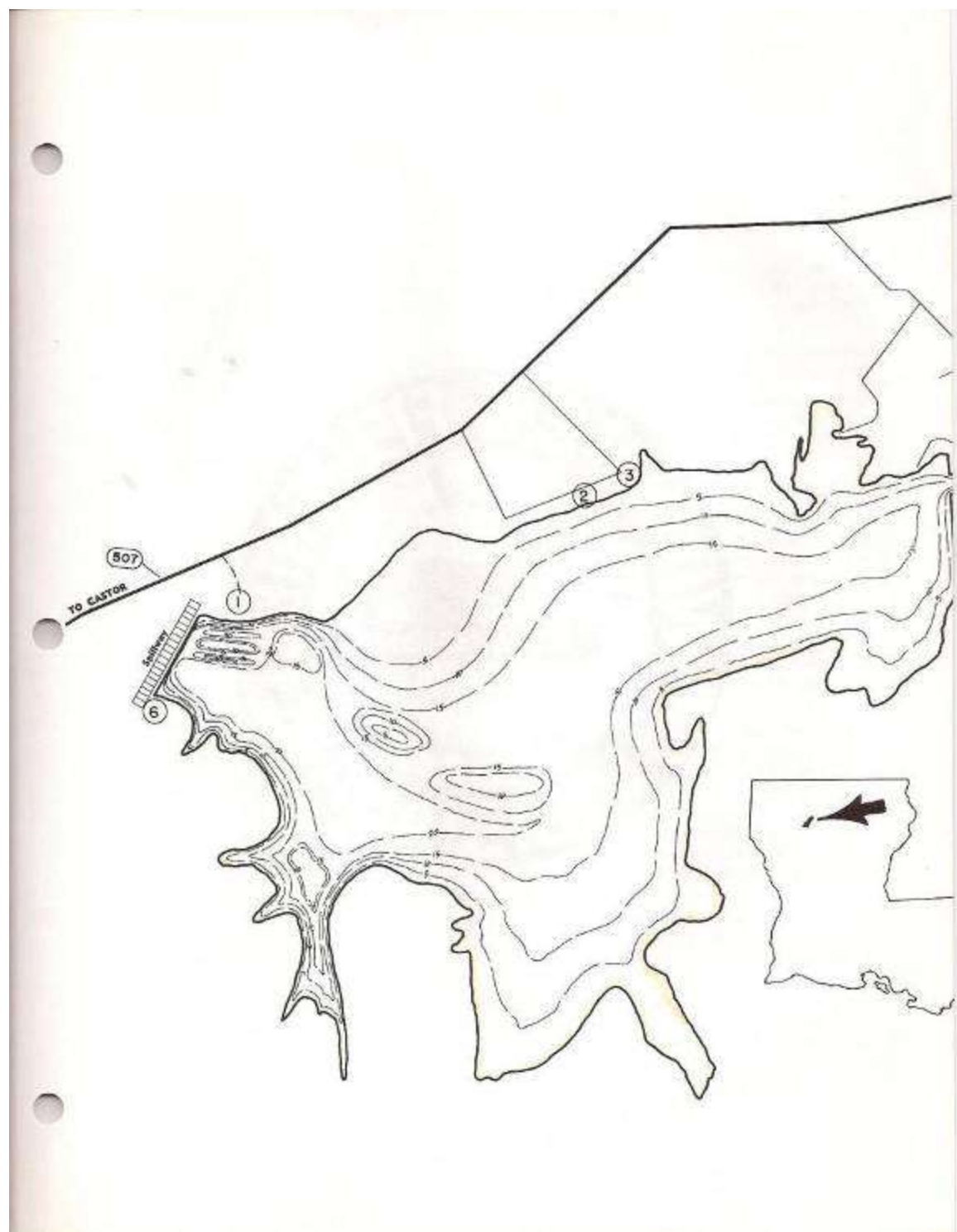
KEPLER LAKE
1989

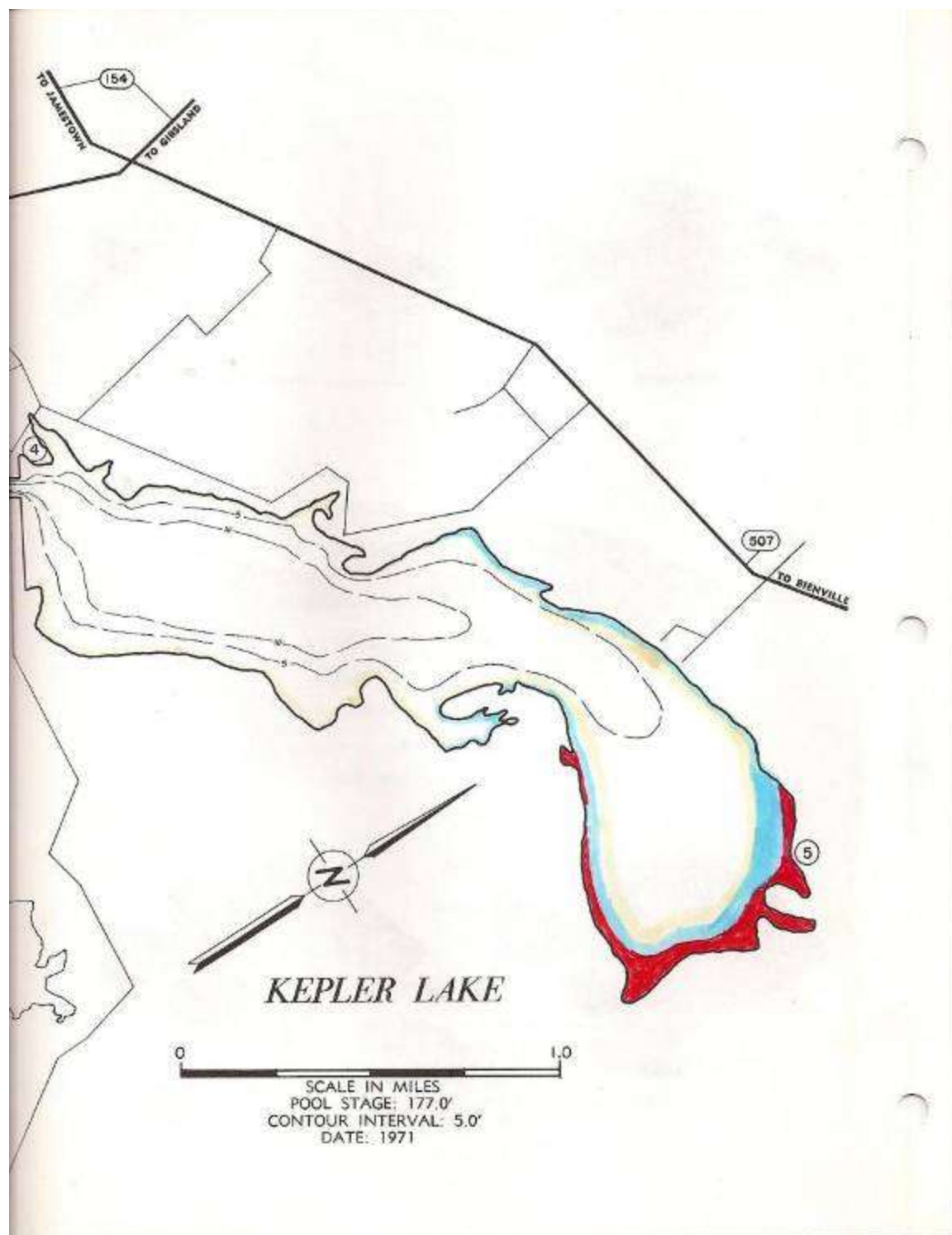
Kepler Lake, Bienville Parish, was assessed in August, 1989. The color of the water in Kepler Lake was a turbid brown color and the lake level was at pool stage. The Secchi disc reading was thirty eight inches (38"). Kepler Lake was subject to flood water in early summer. Flood water in excess of five (5') feet covered for a period of about four days then subsided.

The dominant plant in the upper half of Kepler Lake was fanwort (*Cabomba caroliniana*). Other plants noted were bladderwort (*Utricularia spp.*) and southern naiad (*Najas guadalupensis*). Small amounts of coontail (*Ceratophyllum demersum*) and filamentous algae were also noted.

The dominant plant in the lower half of Kepler Lake was southern naiad (*Najas guadalupensis*). Small amounts of Brazilian elodea (*Egeria densa*) were noted around the public landing and the dam area.

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Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1990

Kepler Lake 1990

Kepler Lake, Bienville Parish, was assessed in August 1990. At the time of assessment Kepler Lake was 2 inches below normal. The water color was turbid brown color in the lower half of the lake and clear in the upper end.

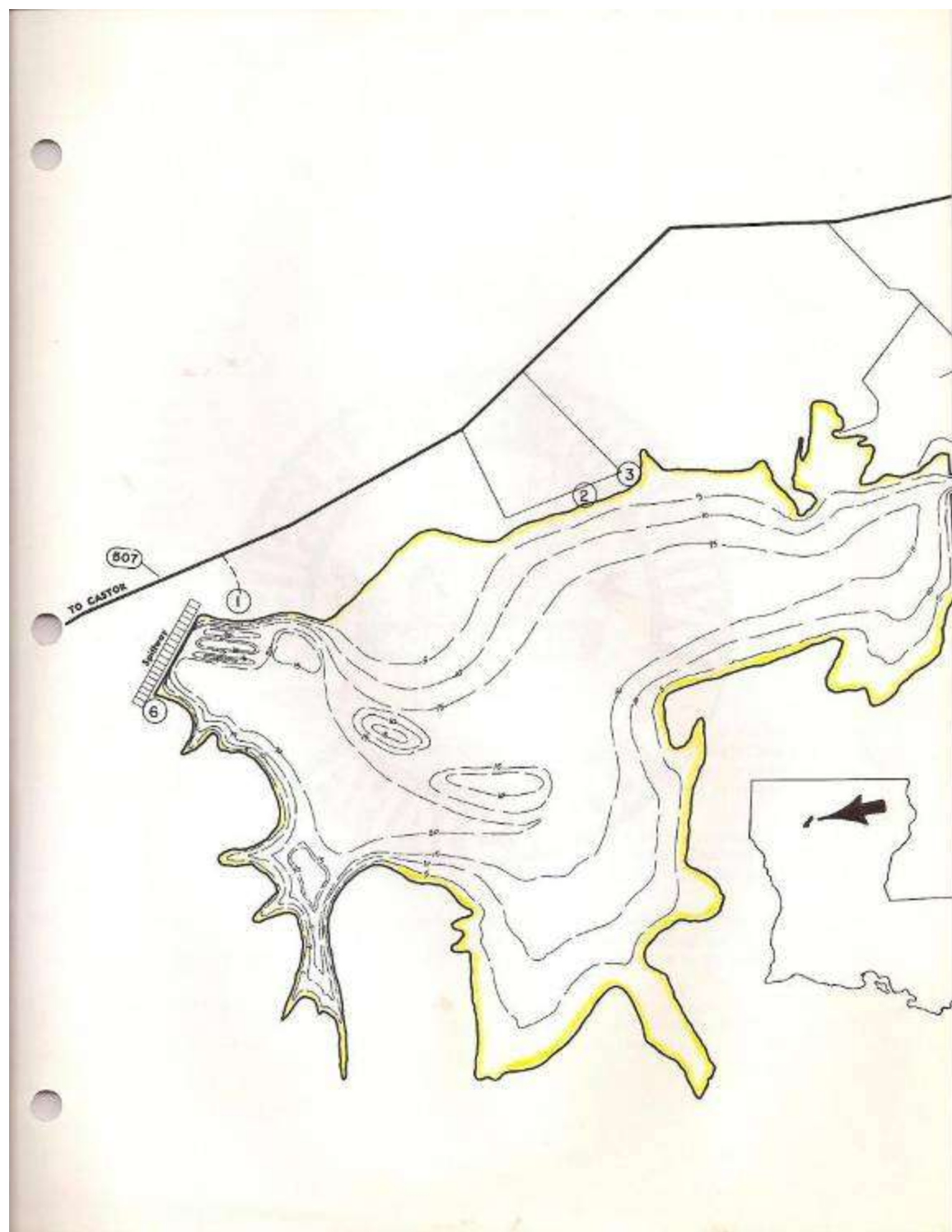
The dominant plant in the upper half of Kepler Lake was fanwort (*Cabomba caroliniana*). Secondary plants were bladderwort (*Utricularia spp.*), Variable-leaf milfoil (*Myriophyllum heterophyllum*), and Brazilian elodea (*Egeria densa*).

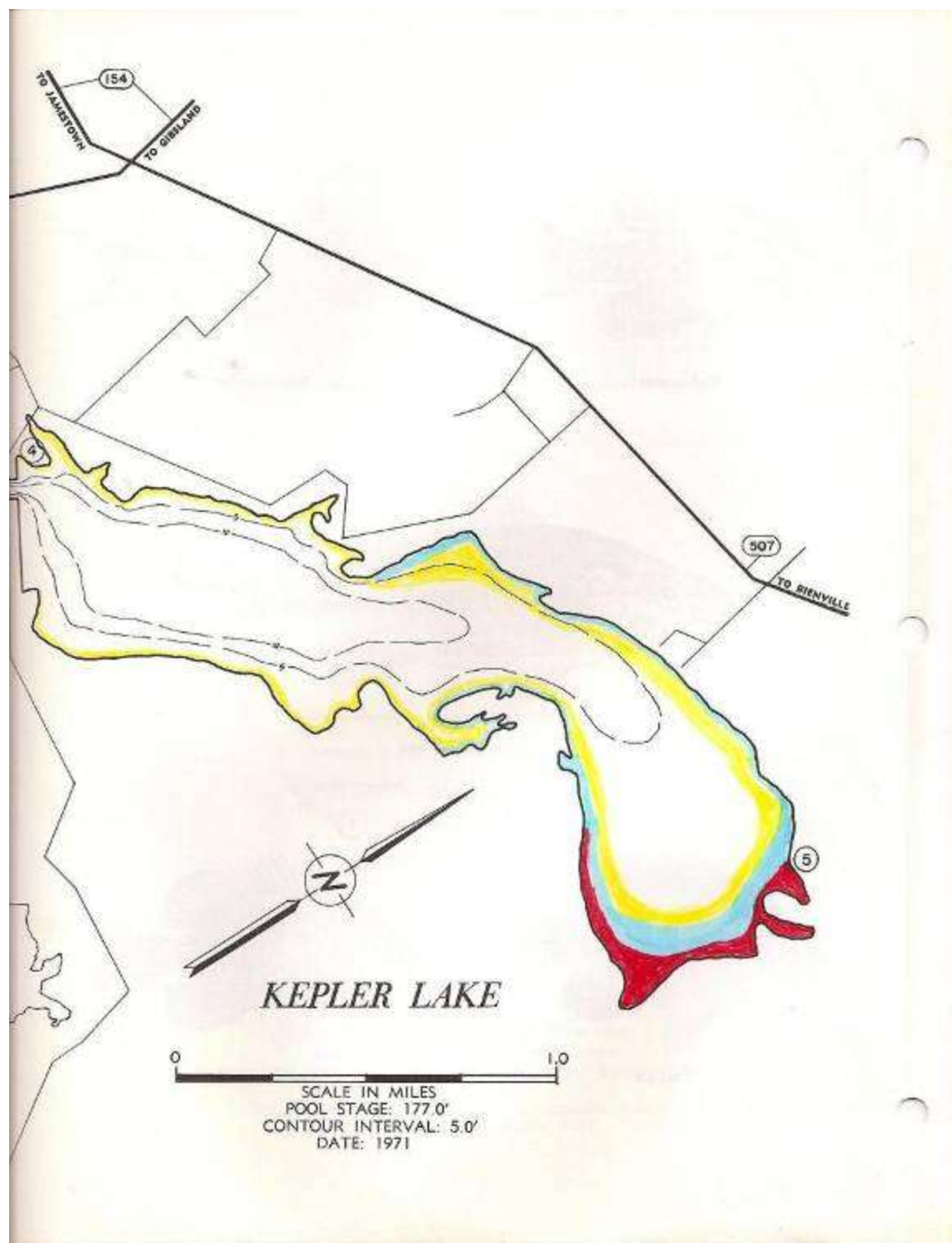
The dominant plant in the lower half of Kepler Lake was bladderwort (*Utricularia spp.*). Secondary plants were fanwort (*Cabomba caroliniana*), Brazilian elodea (*Egeria densa*), and naiad (*Najas spp.*).

The emergent plants noted were American lotus (*Nelumbo lutea*), smartweed (*Polygonum spp.*), water primrose (*Ludwigia octovalvis*), cattail (*Typha spp.*) and miscellaneous grasses and sedges.

The submersed aquatic plant infestation in the upper half of the lake ranged from light to severe in the extreme end of the lake. The infestations in the lower half were light.

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Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1991

KEPLER LAKE 1991

At the time of assessment Kepler Lake was at pool stage. The water color showed some turbidity and a fair amount of plankton. The secchi disc reading was 36 inches.

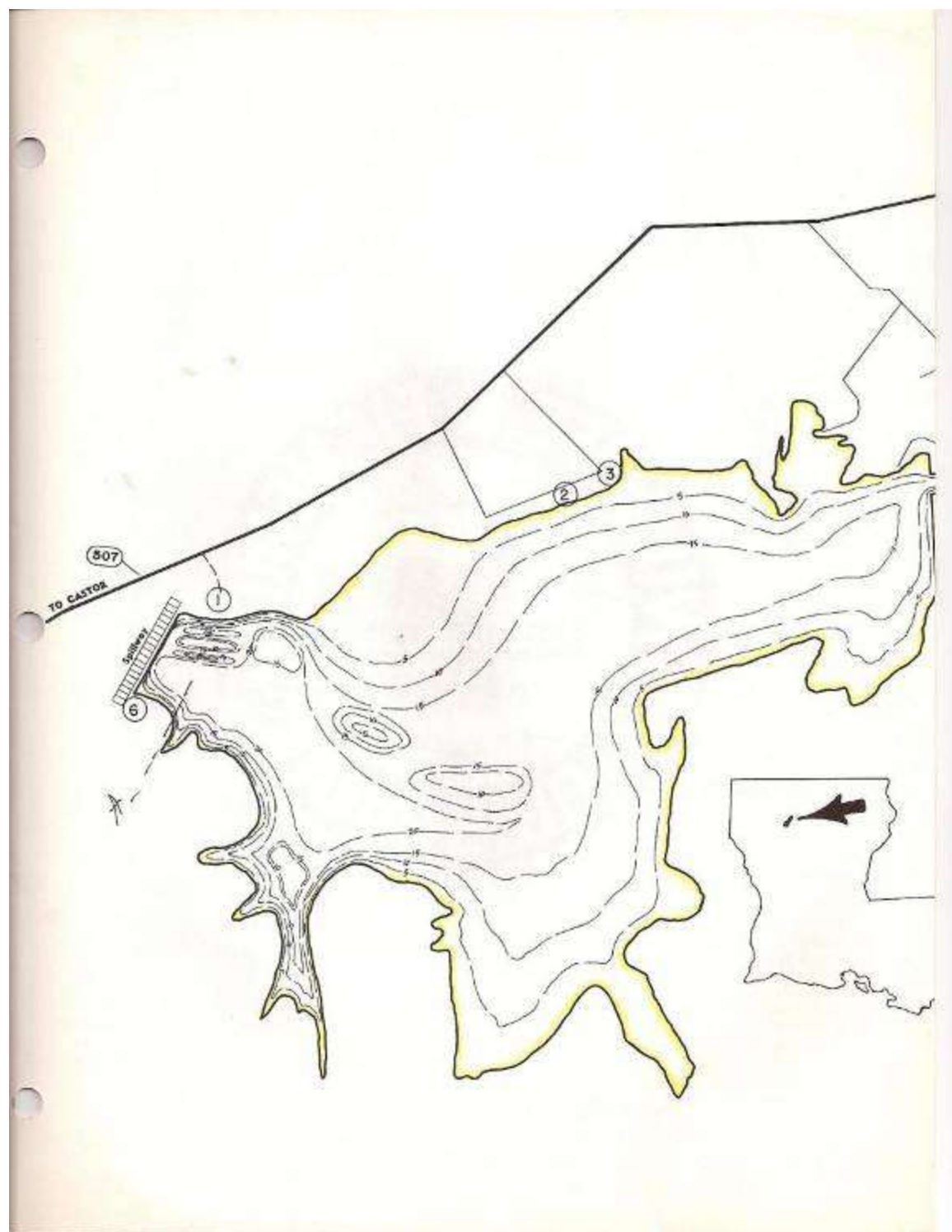
The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia spp.*), Variable-leaf milfoil (*Myriophyllum heterophyllum*), muskgrass (*Chara spp.*), and southern naiad (*Najas guadalupensis*).

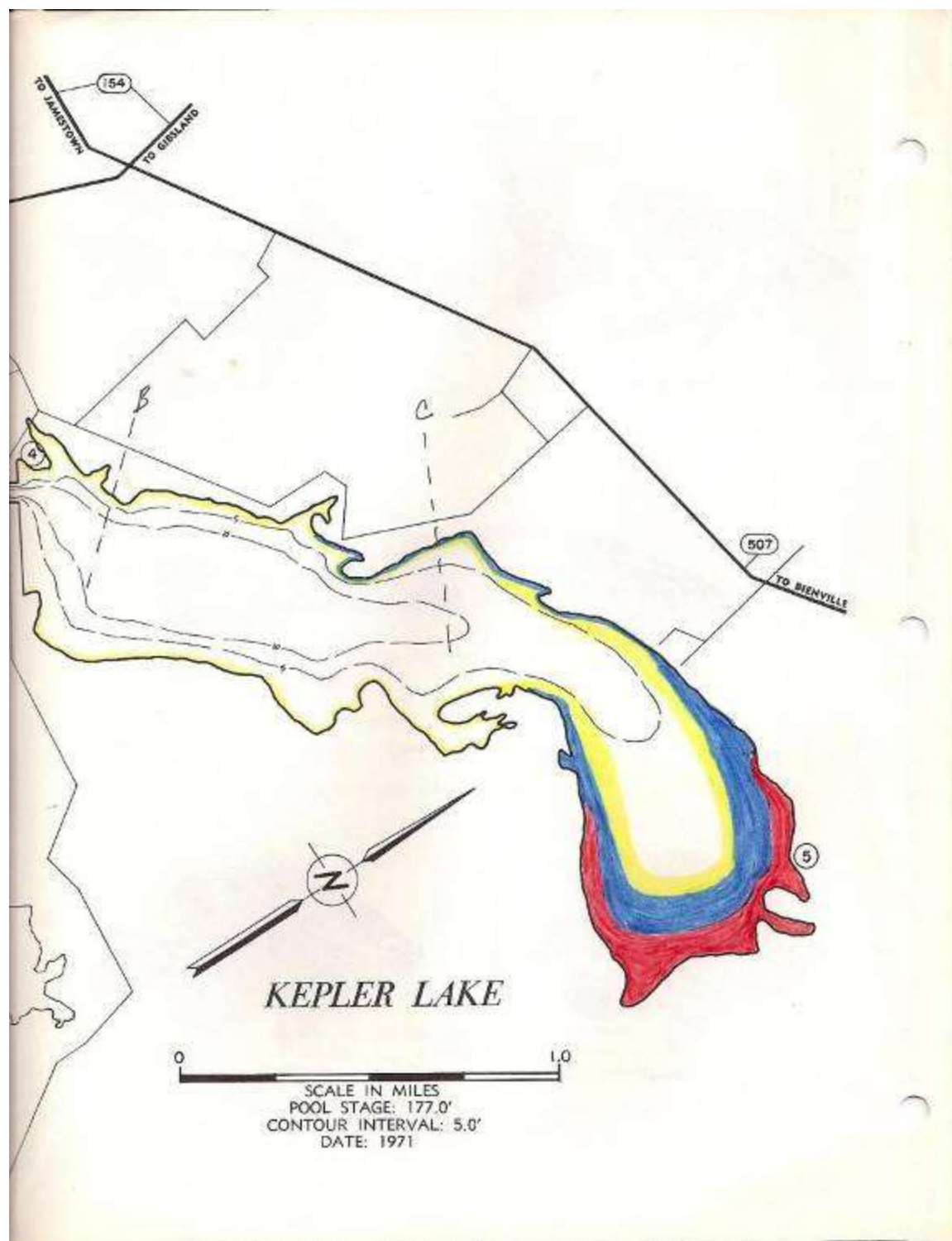
The emersed plants noted were American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), cattail (*Typha spp.*), and smartweed (*Polygonum spp.*).

In summary Kepler Lake has one area of severely infested aquatic plants in the upper end and also some area of moderate infestation. The mid and lower portion of the lake have light infestations. Kepler Lake was subjected to flooding in the early spring with levels reaching 4 feet above pool stage.

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Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1992

Kepler Lake 1992

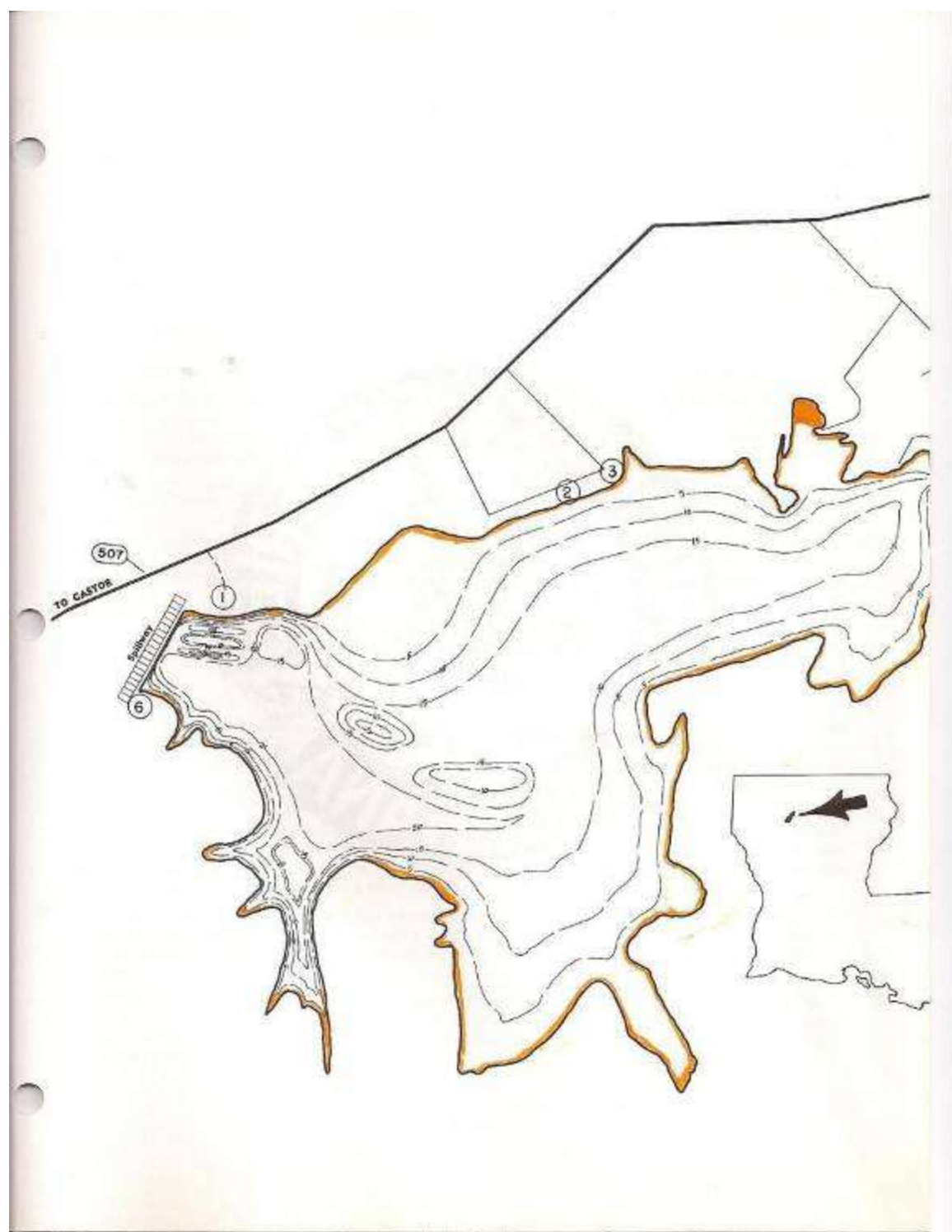
At the time of assessment Kepler Lake was at pool stage. The water color was clear in most areas. There was some turbidity in the area of the dam. In most areas the Secchi disc reading was 35 inches. The lake had a fair plankton bloom.

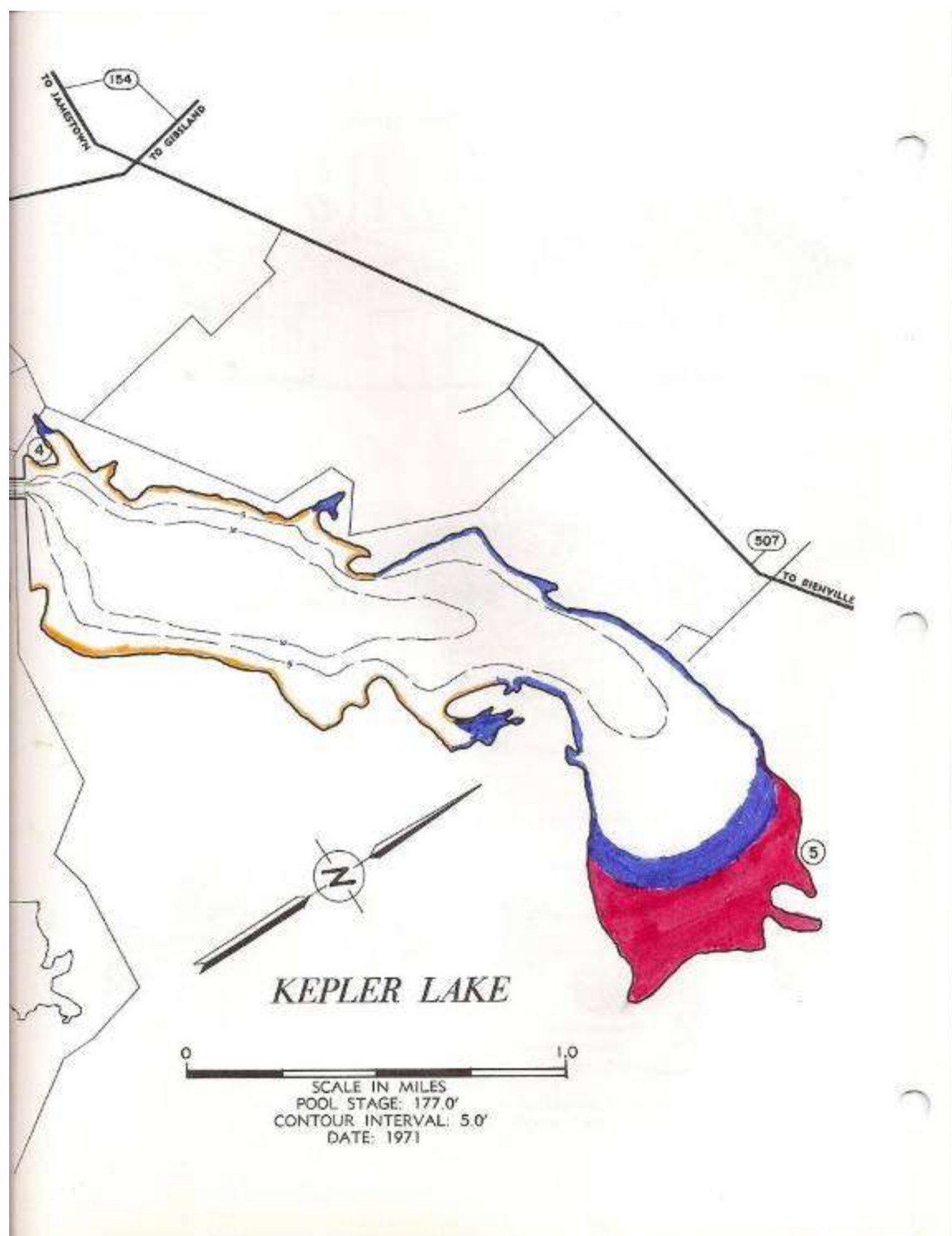
The aquatic plants noted were fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia spp.*), milfoil (*Myriophyllum spp.*), pondweed (*Potamogeton spp.*), naiad (*Najas spp.*), and muskgrass (*Chara spp.*).

Most infestations were light in all areas of the lake, except the extreme upper end which was moderately infested.

Submersed aquatic plants have shown some increase especially the upper end of the lake.

Above text transcribed from handwritten notes presumably written by Melvin Bagwell and corrected by James Seales, January 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative– 1993

Kepler Lake 1993

Kepler Lake was surveyed and assessed for aquatic plants in August, 1993.

At the time of the assessment Kepler Lake was at pool stage. The water color was very clear with no turbidity. The Secchi disc reading was 48 inches and the pH was 6.8.

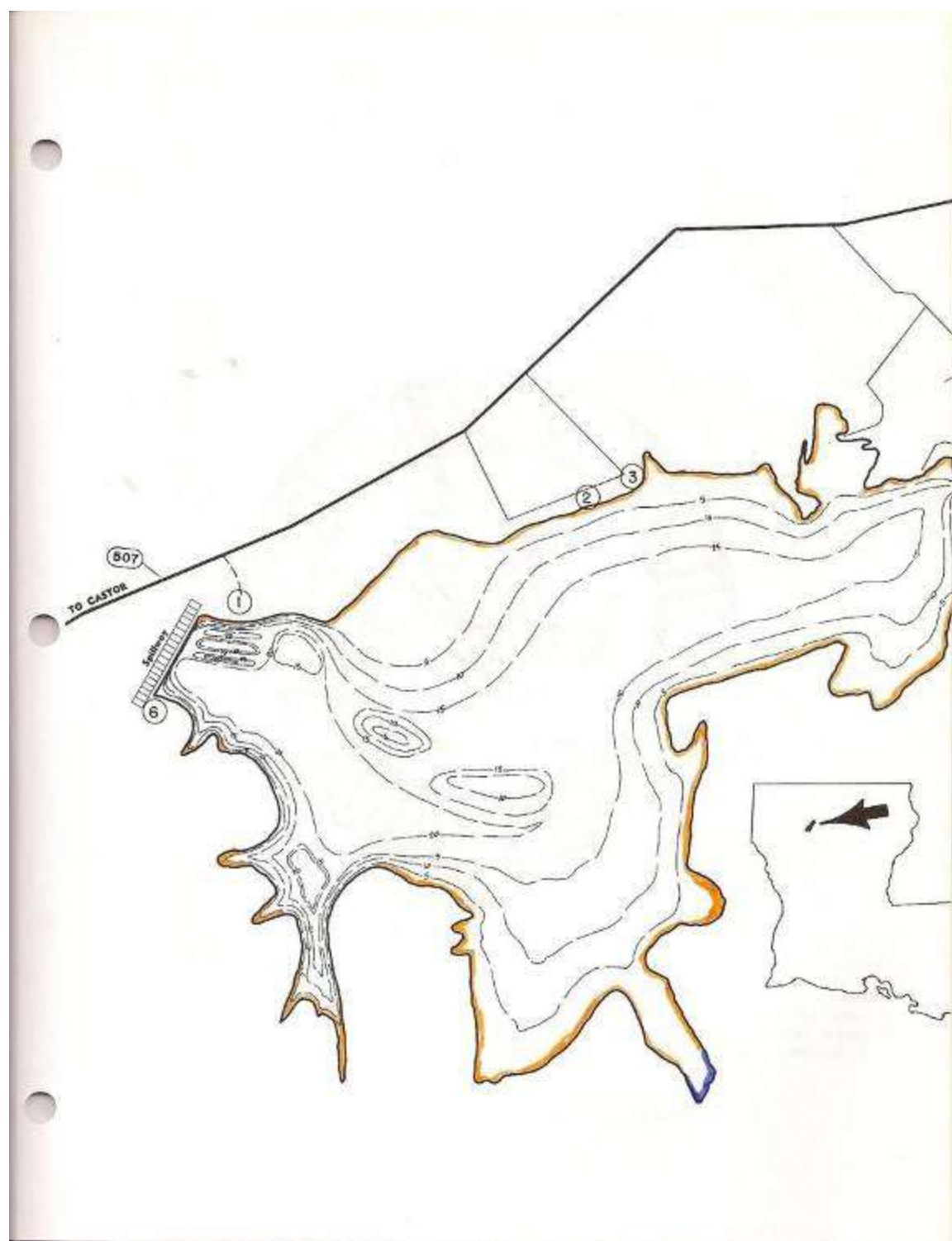
The primary aquatic plant noted was fanwort (*Cabomba caroliniana*). Infestations ranged from severe in the upper end to light in other areas. Infestations were out to 7 feet deep in some areas.

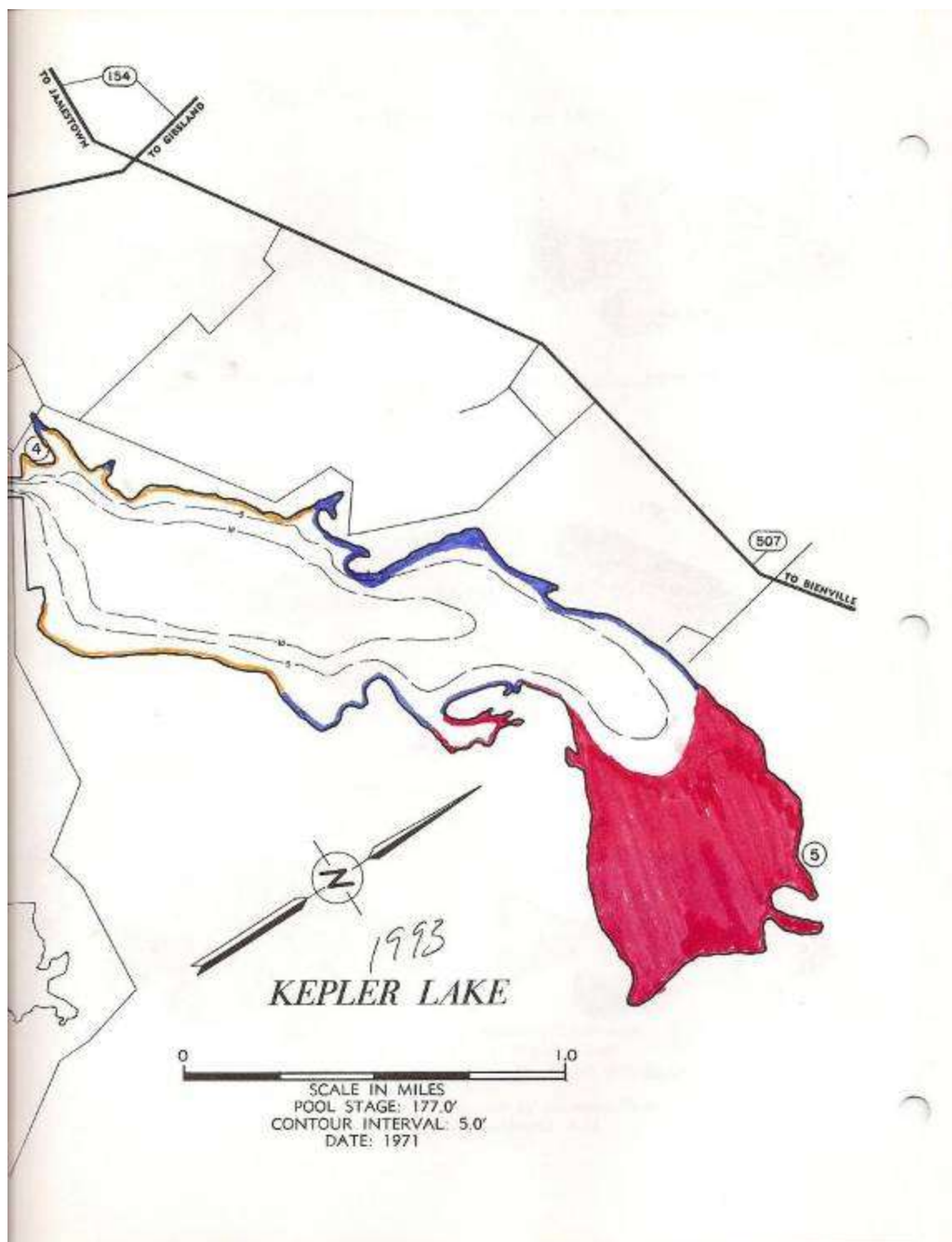
The secondary plants were coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia* spp.), and milfoil (*Myriophyllum* spp.). Most infestations were light or mixed with fanwort (*Cabomba caroliniana*). Brazilian elodea (*Egeria densa*) was established at the boat ramp at the dam. Brazilian elodea (*Egeria densa*) infestations were light.

American lotus (*Nelumbo lutea*) was noted at three locations in the area around Austin's camp. The coverage of American lotus (*Nelumbo lutea*) totaled approximately three acres.

Water shield (*Brasenia schreberi*) was noted at a launch in the mid portion of the lake.

Above text transcribed from handwritten notes presumably written by Melvin Bagwell and corrected by James Seales, February 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1994

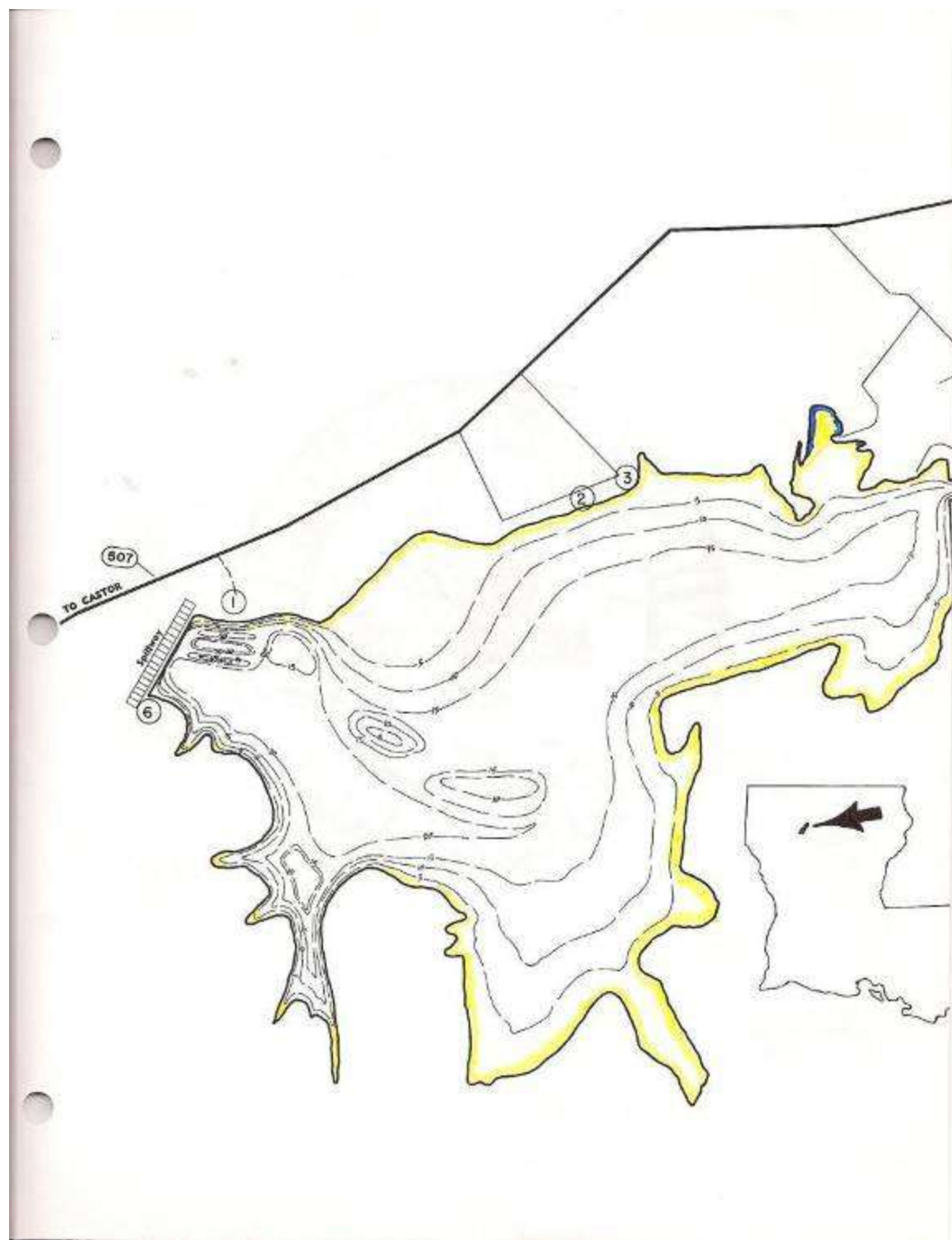
Kepler Lake 1994

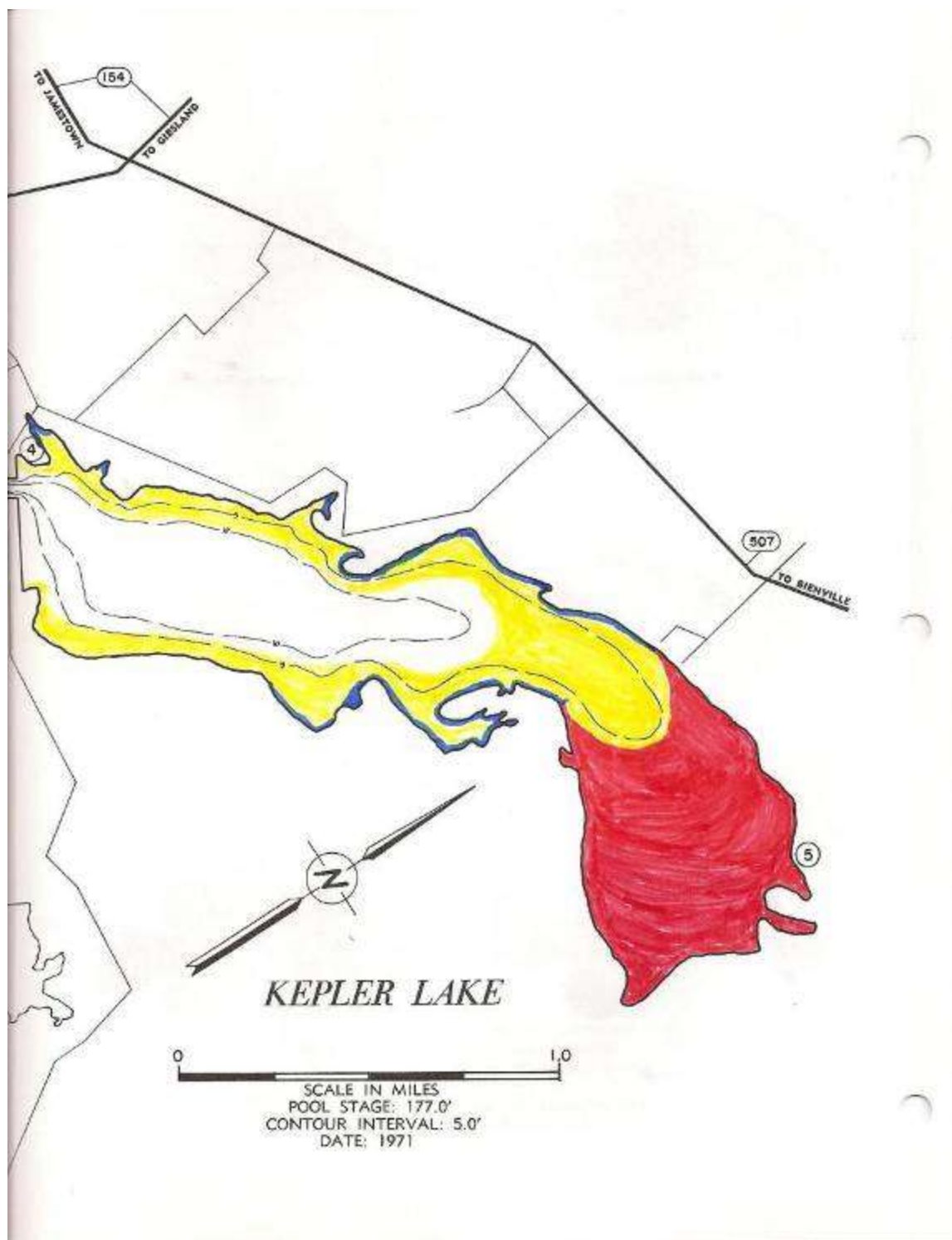
At the time of the assessment Kepler Lake was at pool stage. The water color was extremely clear. The water had some brown stains. The pH was 7.4. The Secchi disc reading at the dam was 56 inches and the reading in the upper end was 49 inches.

The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia spp.*), milfoil (*Myriophyllum spp.*), coontail (*Ceratophyllum demersum*), southern naiad (*Najas guadalupensis*), Brazilian elodea (*Egeria densa*), muskgrass (*Chara spp.*), pondweed (*Potamogeton spp.*), and filamentous algae.

The submersed aquatic plants in Kepler Lake ranged from light infestations in the lower end to moderate and severe in the upper end. There had been some increase in area and water depth into which the plants have spread. The plants were breaking at 6 feet.

Above text transcribed from handwritten notes presumably written by Melvin Bagwell and corrected by James Seales, February 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1995

Kepler Lake 1995

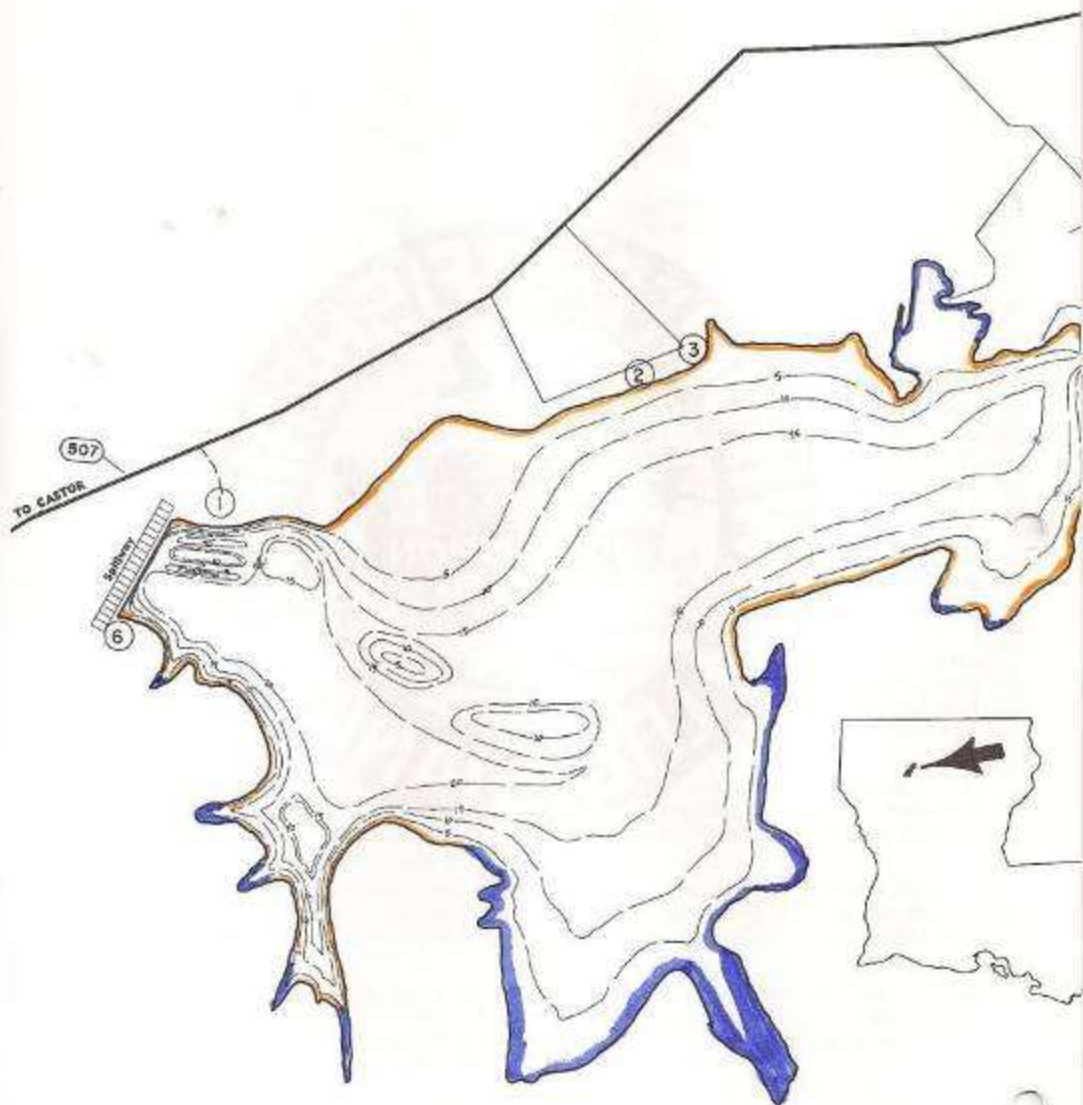
At the time of the assessment Kepler Lake was at pool stage. The water was clear with no turbidity. The Secchi disc reading was 40 inches.

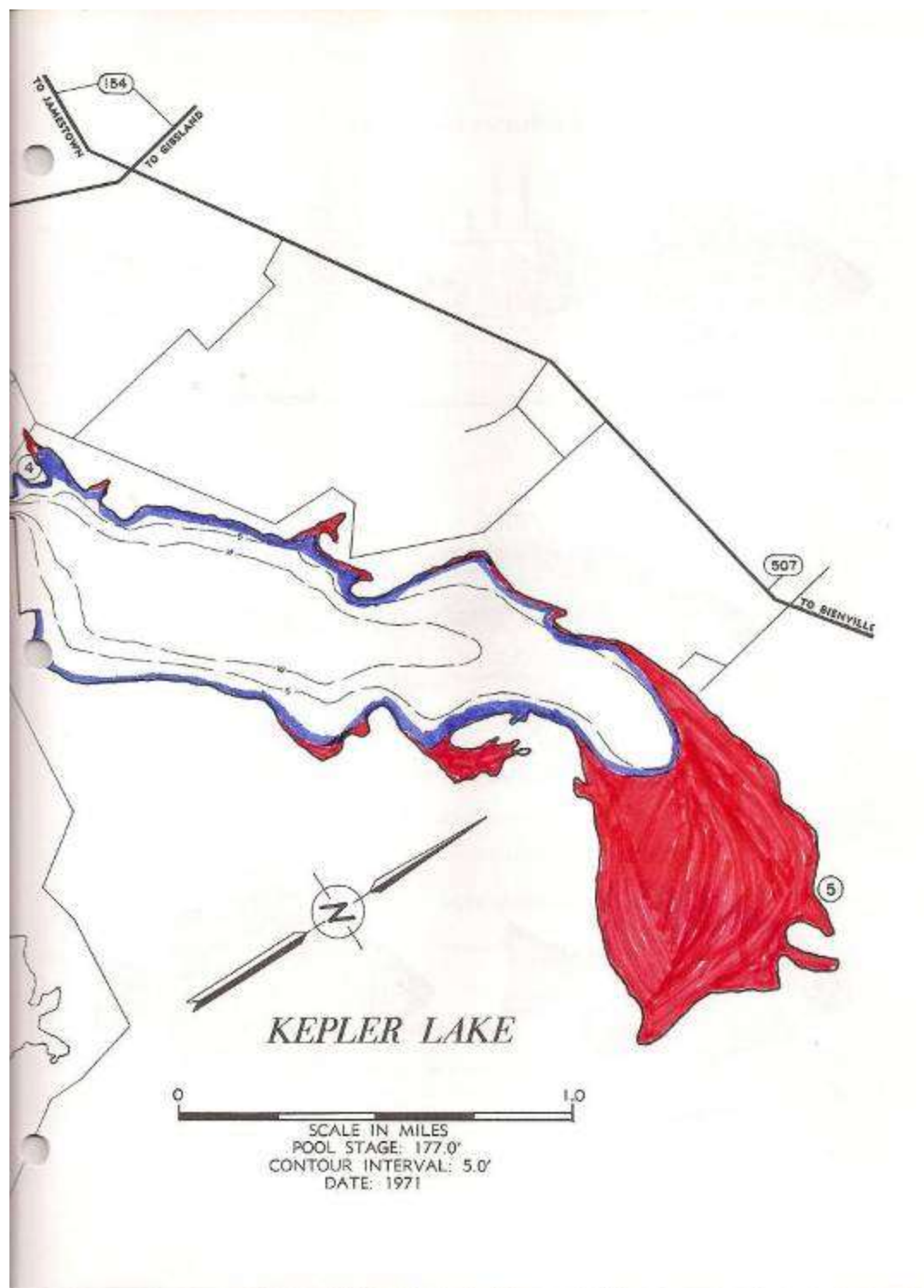
The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), bladderwort (*Utricularia spp.*), coontail (*Ceratophyllum demersum*), pondweed (*Potamogeton spp.*), Brazilian elodea (*Egeria densa*), and milfoil (*Myriophyllum spp.*).

The infestations of submersed plants ranged from light to moderate in most areas. There is a severe infestation in the extreme upper end.

The emersed plants noted were smartweed (*Polygonum spp.*), American lotus (*Nelumbo lutea*), water primrose (*Ludwigia octovalvis*), arrowhead (*Sagittaria spp.*), lizard's tail (*Saururus cernuus*) and pickerel weed (*Pontederia cordata*).

Above text transcribed from handwritten notes presumably written by Melvin Bagwell and corrected by James Seales, February 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1998

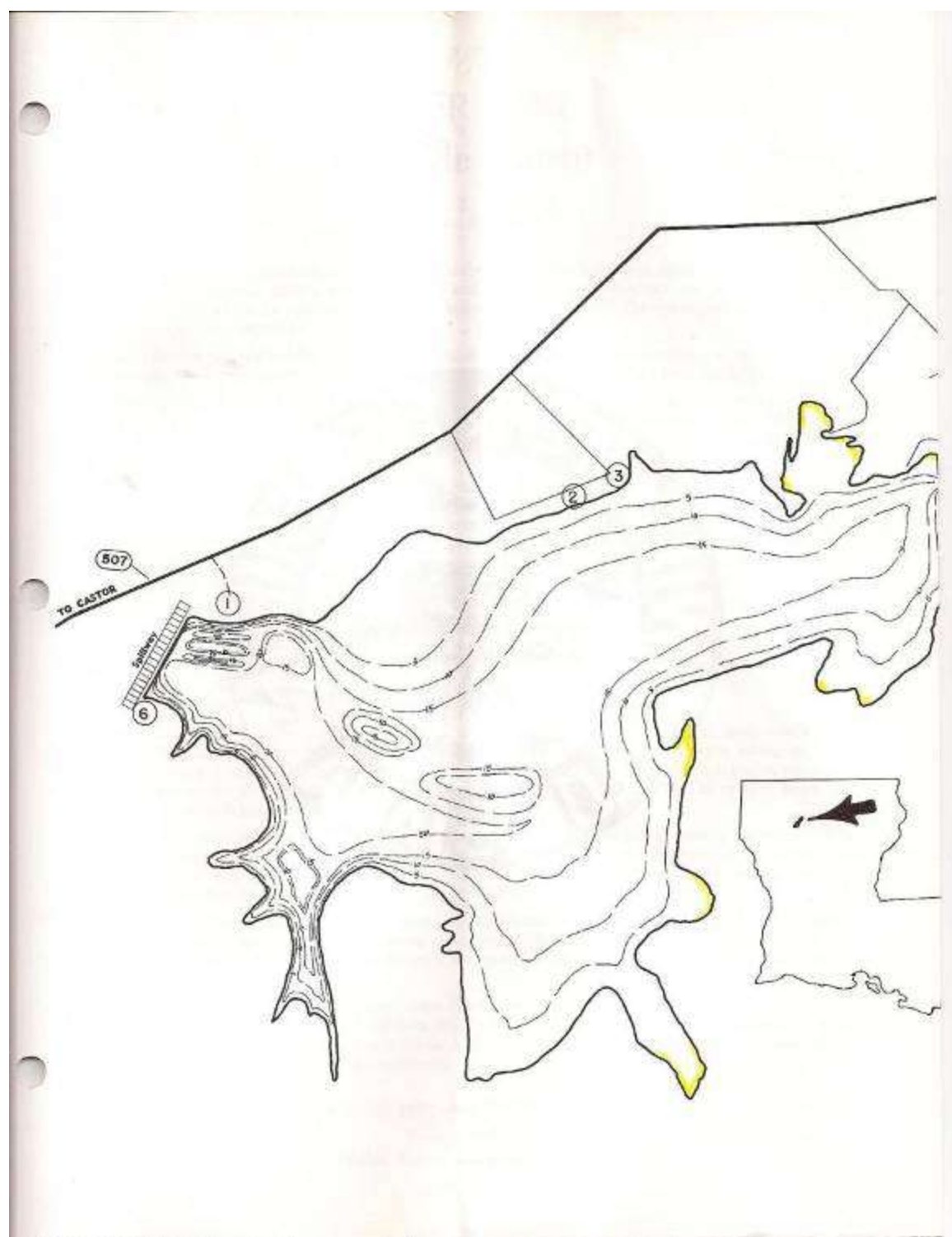
KEPLER LAKE 1998

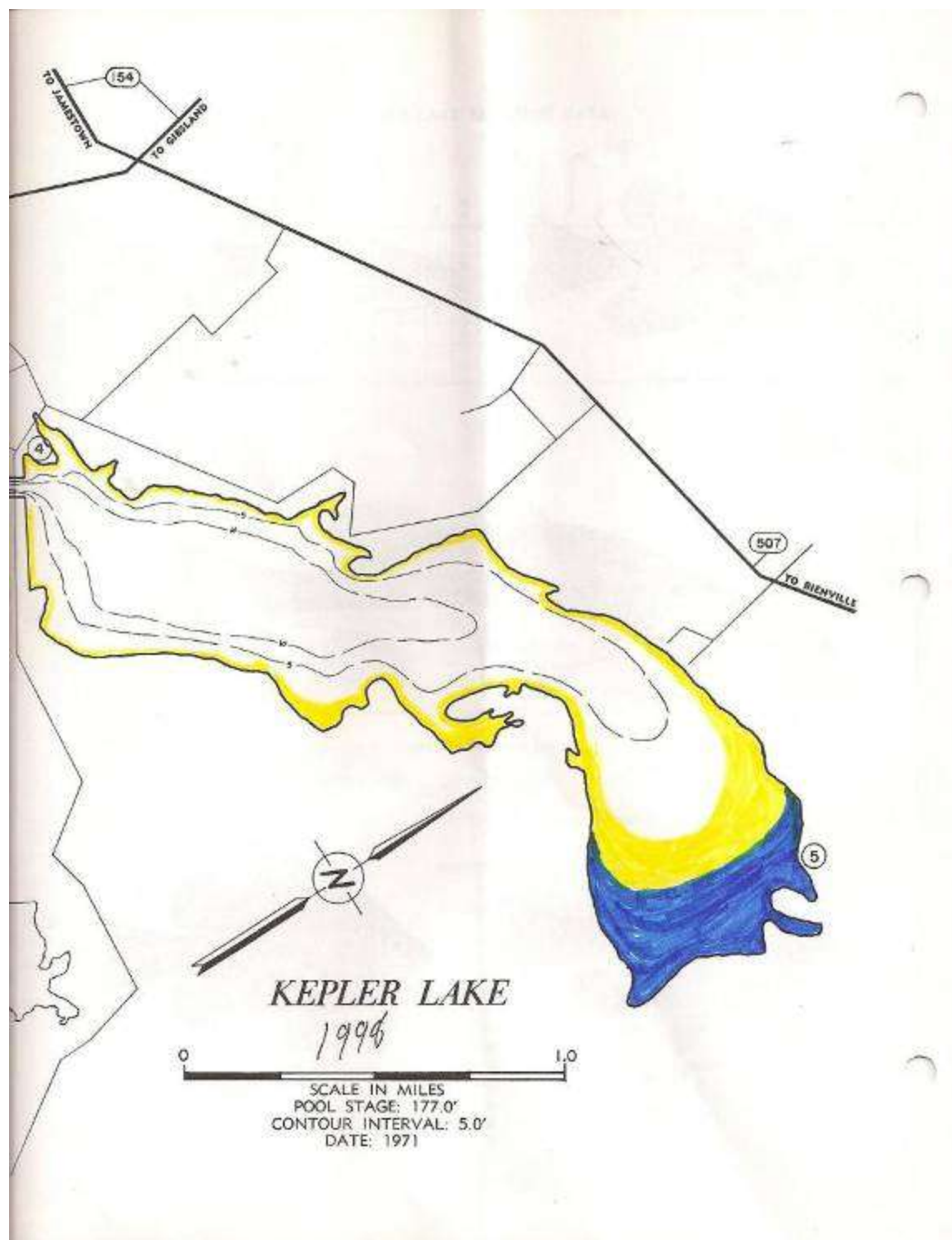
Melvin Bagwell

At the time of the assessment, Kepler Lake was at pool stage. The water color was extremely clear. The aquatic plants surveyed were fanwort (*Cabomba caroliniana*), milfoil (*Myriophyllum spp.*), muskgrass (*Chara spp.*), filamentous algae, spikerush (*Eleocharis spp.*), and coontail (*Ceratophyllum demersum*). The floating and emersed plants noted were American lotus (*Nelumbo lutea*), bulrush (*Scirpus spp.*), fragrant water lily (*Nymphaea odorata*), Water shield (*Brasenia schreberi*), water hyssop (*Bacopa spp.*), water primrose (*Ludwigia octovalvis*), lizard's tail (*Saururus cernuus*), and pickerel weed (*Pontederia cordata*).

The distribution of aquatic plants in Kepler Lake was moderate in the extreme upper end to very light in all other areas. The total infestation was an estimated 10%.

Above text transcribed from original document and corrected by James Seales, January 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 1999

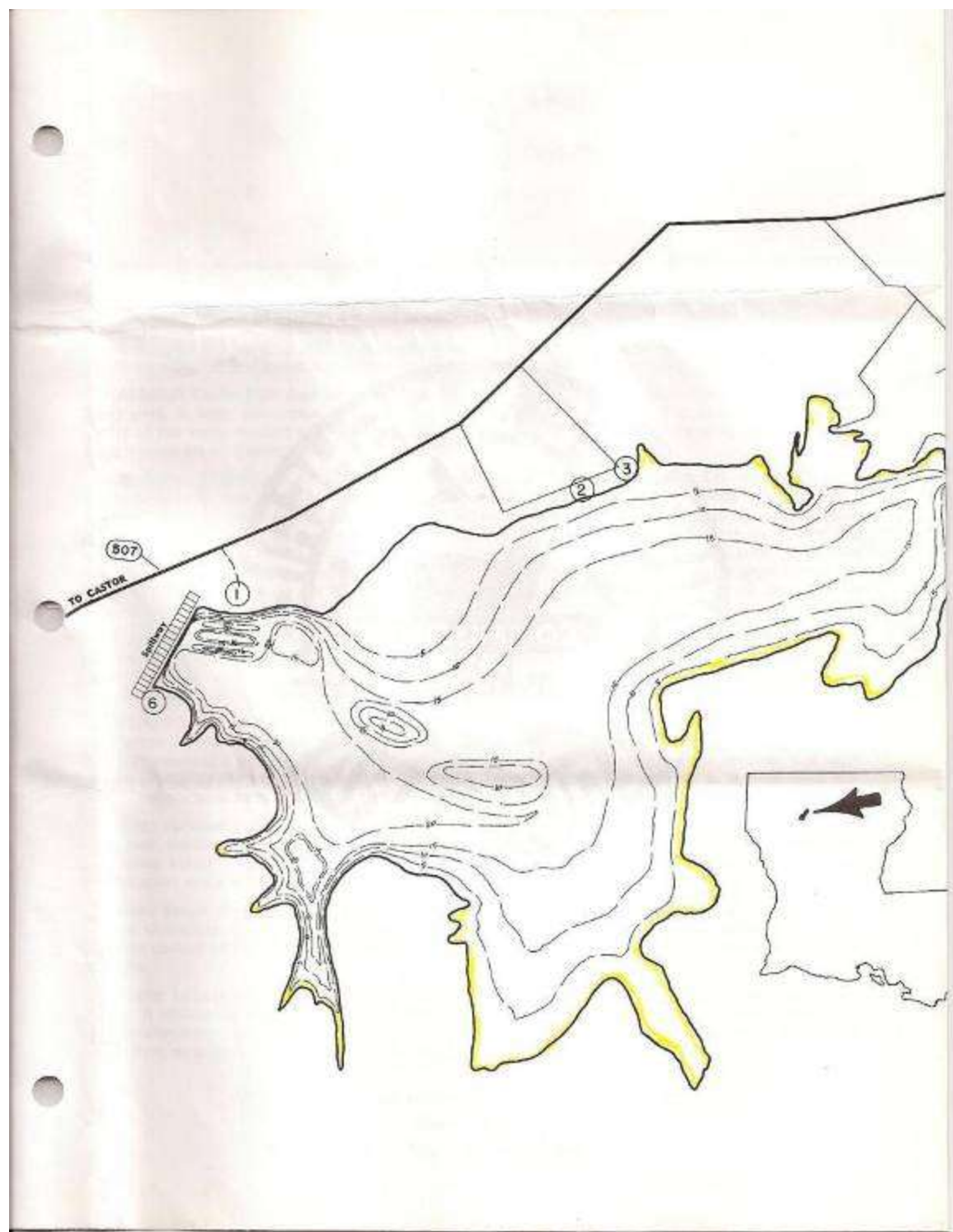
Kepler Lake 1999 Melvin
Bagwell

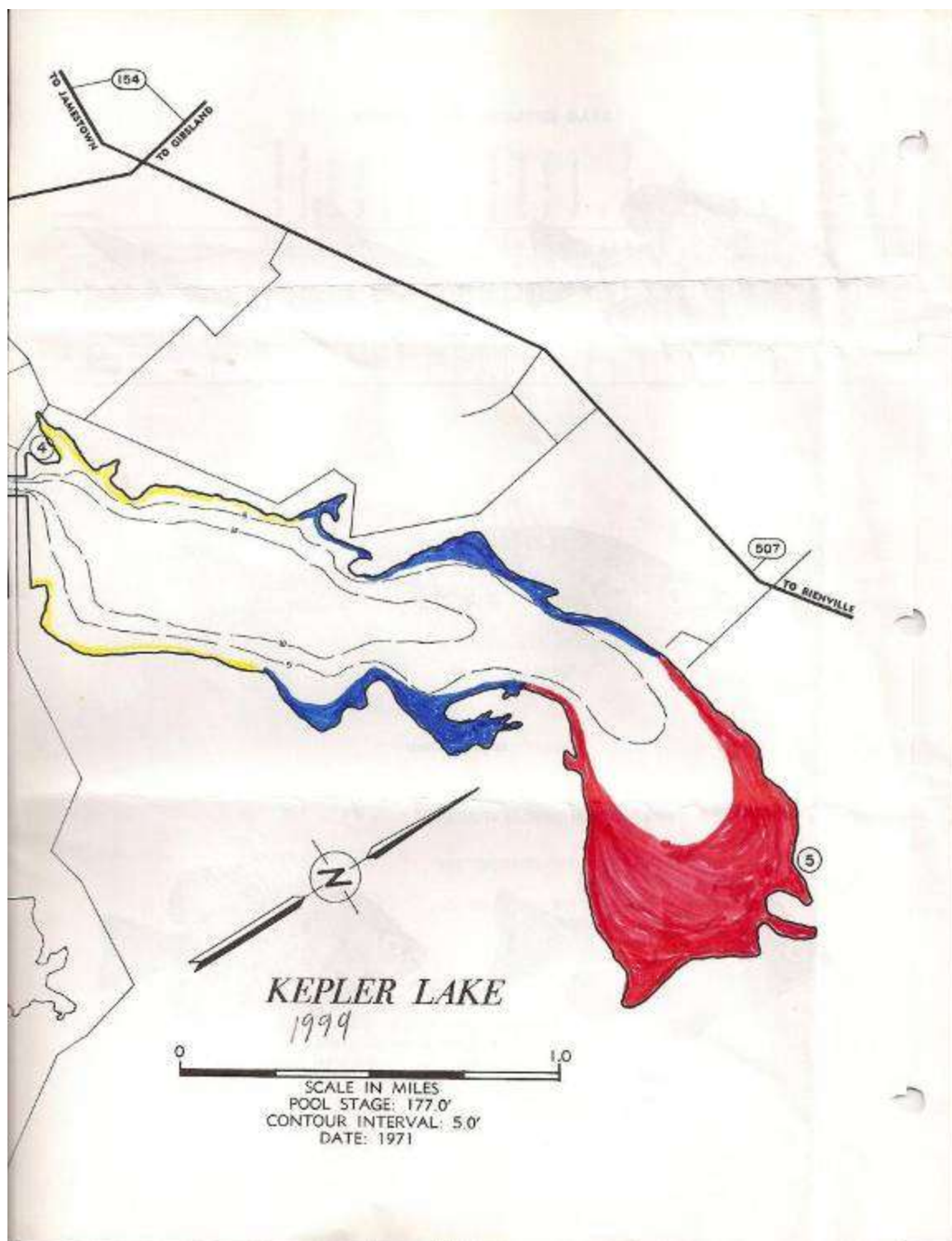
At the time of the assessment, Kepler Lake was at pool stage. The water color was clear.

The submersed aquatic plants noted were southern naiad (*Najas guadalupensis*), fanwort (*Cabomba caroliniana*), milfoil (*Myriophyllum spp.*), coontail (*Ceratophyllum demersum*), and bladderwort (*Utricularia spp.*). The emersed aquatic plants noted were smartweed (*Polygonum spp.*), water hyssop, (*Bacopa spp.*), cattail (*Typha spp.*), water primrose (*Ludwigia octovalvis*), and American lotus (*Nelumbo lutea*).

The infestations of submersed aquatic plants were light in all areas except the extreme upper end which was moderate to severe. The emersed aquatic plants were marginal and light in infestation.

Above text transcribed from original document and corrected by James Seales, January 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 2000

Kepler Lake August 2000
Melvin Bagwell

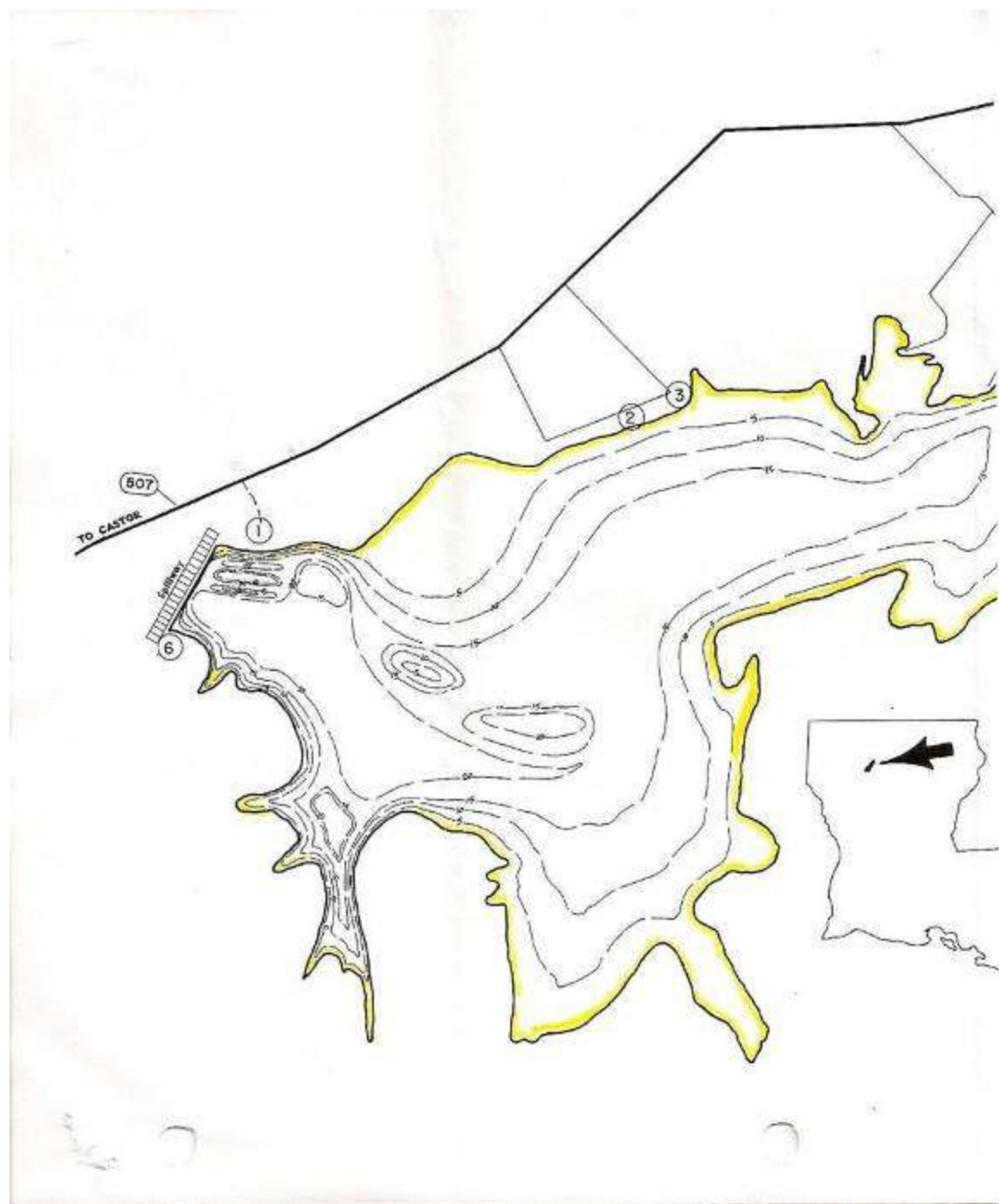
At the time of the assessment Kepler Lake was at pool stage. The water color was clear.

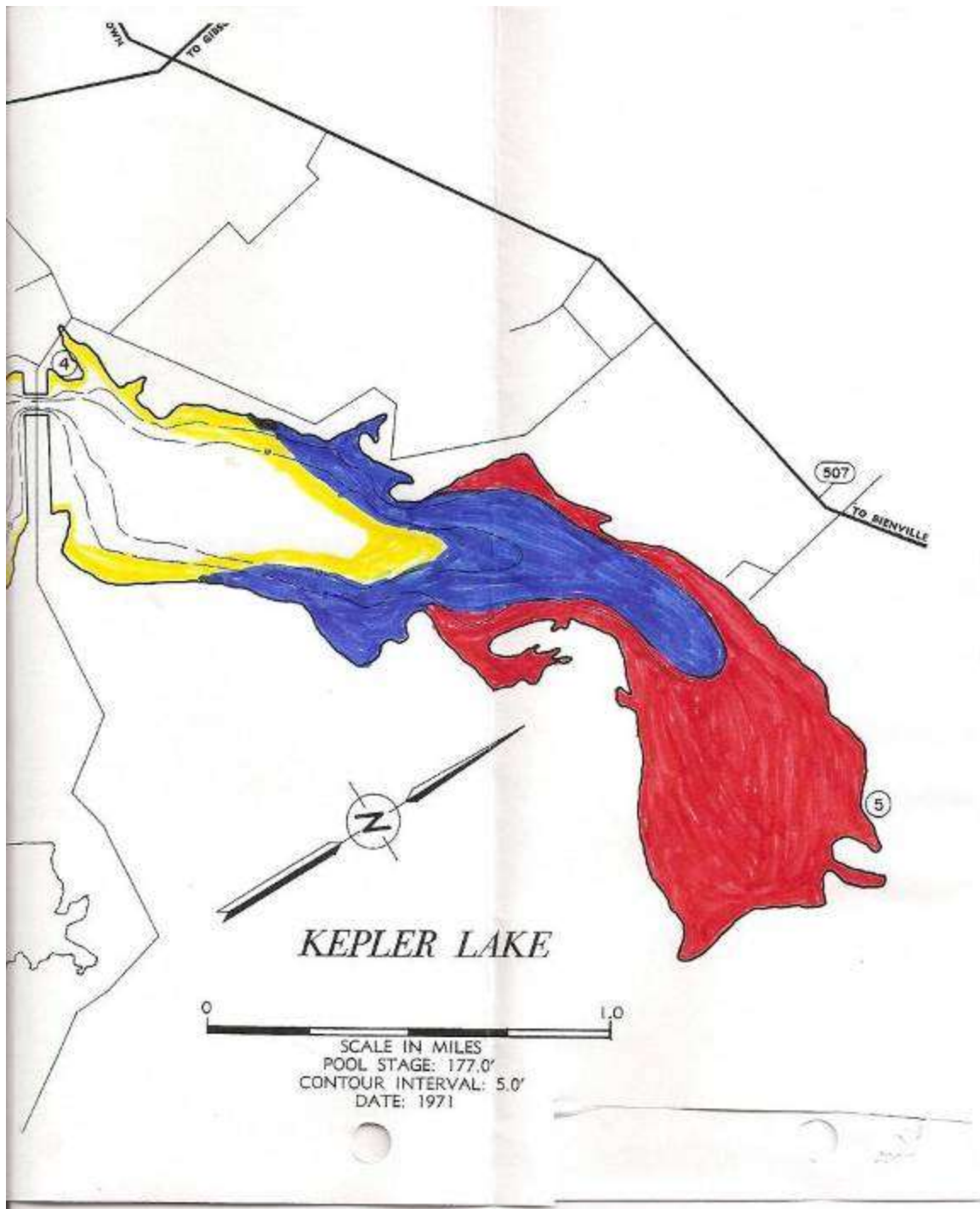
The submersed aquatic plants noted were fanwort (*Cabomba caroliniana*), milfoil (*Myriophyllum spp.*), bladderwort (*Utricularia spp.*), coontail (*Ceratophyllum demersum*), muskgrass (*Chara spp.*), southern naiad (*Najas guadalupensis*), pondweed (*Potamogeton spp.*), and filamentous algae.

The emersed aquatic plants noted were American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), water pennywort (*Hydrocotyle umbellata*), water primrose (*Ludwigia octovalvis*) and water shield (*Brasenia schreberi*).

The estimated percentage of infestation was 10 percent.

Above text corrected by James Seales, February 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 2001

KEPLER LAKE

July 2001

Melvin Bagwell

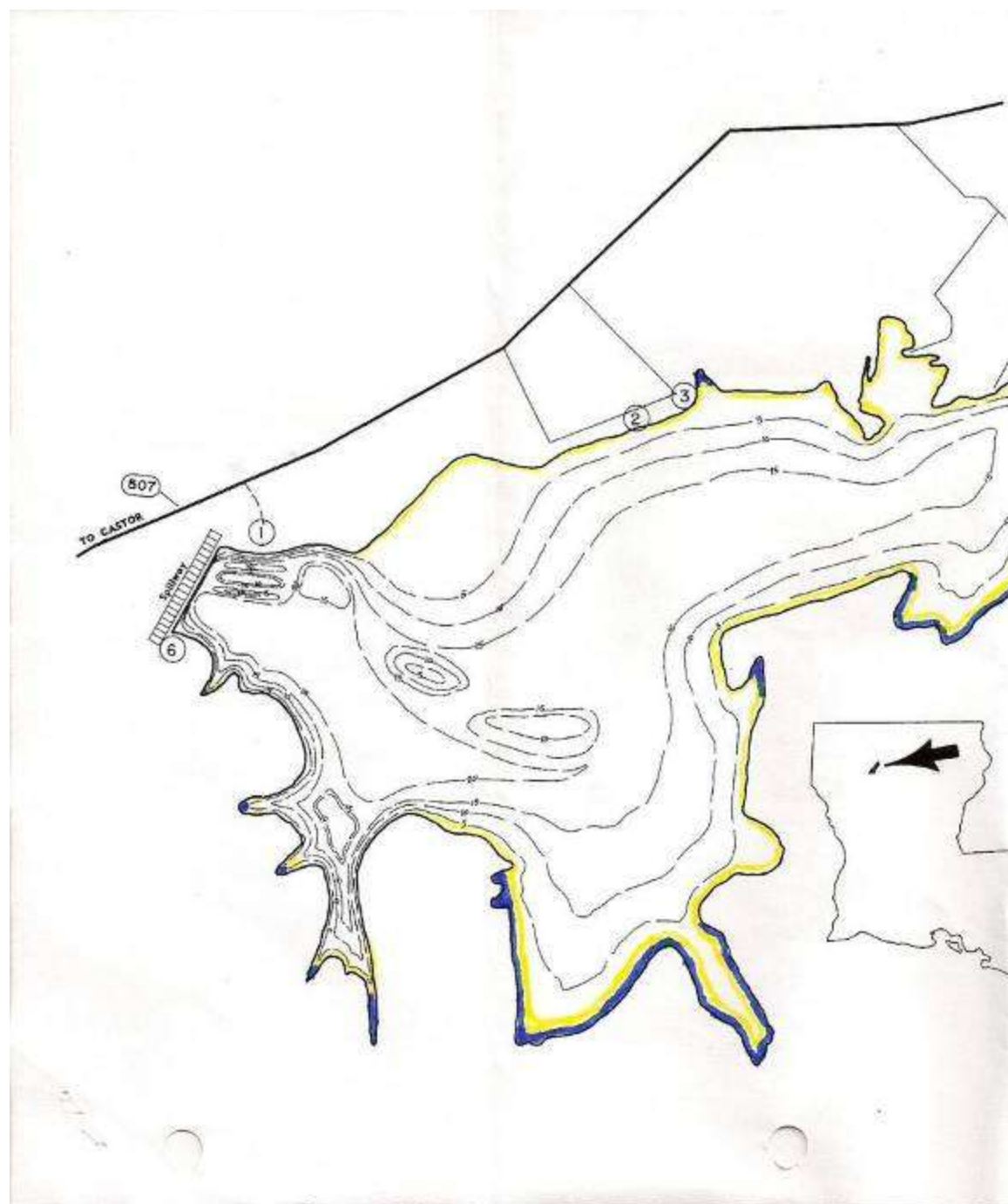
Kepler Lake was surveyed for the presence of aquatic vegetation on July 24, 2001. At the time of the survey the lake was at pool stage. The water color was clear.

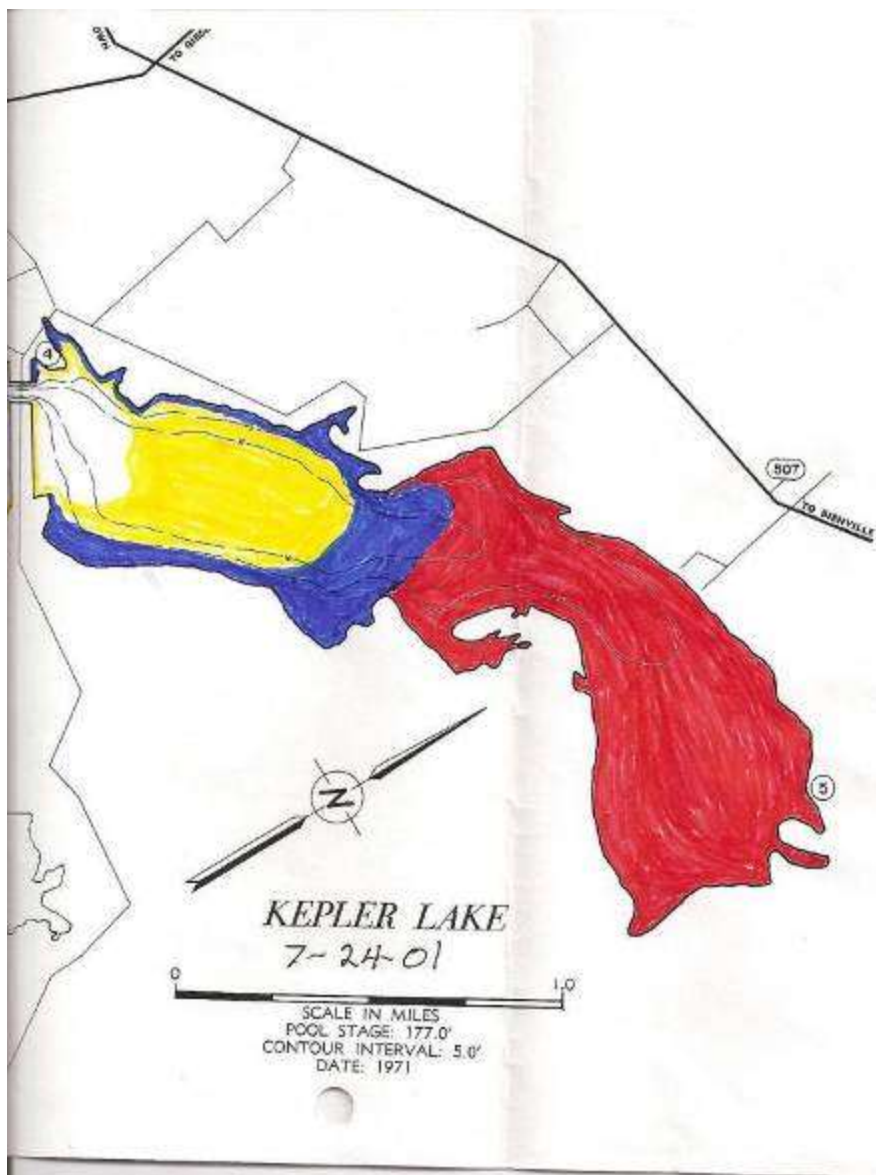
The submersed plants noted were: fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), bladderwort (*Utricularia spp.*), milfoil (*Myriophyllum spp.*), spikerush (*Eleocharis spp.*), muskgrass (*Chara spp.*) and filamentous algae.

The emersed plants noted were: American lotus (*Nelumbo lutea*), fragrant water lily (*Nymphaea odorata*), waterhyssop (*Bacopa spp.*), bulrush (*Scirpus spp.*), and watershield (*Brasenia schreberi*).

The estimated percent coverage of submersed plants was 25%.

Above text corrected by James Seales, February 2012.





Kepler Lake – Aquatic Vegetation Type Map and Narrative – 2009

A vegetation type map survey was performed in May of 2009. Coverage of submerged aquatic vegetation was approximately 500 acres, and emergent vegetation covered approximately 50 acres. The submerged vegetation consisted of 90% milfoil (*Myriophyllum* spp.), 5% fanwort (*Cabomba caroliniana*), 3% American lotus (*Nelumbo lutea*), and 2% mixture of other species.

Above text assimilated from information in e-mail from John White.

Kepler Lake – Typemap Survey – April 2009 South End



Kepler Lake – Typemap Survey – April 2009
North End

